ATS-10-248

BLM-CARLSBAD FIELD OFFICE

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

NO NOS

5. Lease Serial No.
SHL:NM NM114347 BHL:NM NM120349

6. If Indian, Allotee or Tribe Name
N/A

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
N/A

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
CARBON VALLEY 26 FED COM #1H

2. Name of Operator
MURCHISON OIL & GAS, INC.

9. API Well No.

3a. Address
1100 MIRA VISTA BLVD.
PLANO, TX. 75093-4698

3b. Phone No. *(include area code)*
972-931-0700

10. Field and Pool, or Exploratory
DOG CANYON; WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1980' FSL & 250' FEL, UNIT I
At proposed prod. zone 1980' FSL & 330' FWL, UNIT L

11. Sec., T. R. M. or Blk. and Survey or Area
SEC. 26, T16S, R27E

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 11 MILES NE OF ARTESIA, NEW MEXICO

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
250' AT SURFACE
526' AT TOP WOLFCAMP

16. No. of acres in lease
120

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
N/A

19. Proposed Depth
10705' MD 6235' TVD
PILOT 6600' TVD

20. BLM/BIA Bond No. on file
NM2163

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3491' GL

22. Approximate date work will start*
04/01/2010

23. Estimated duration
30 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature A. Arnold Nall
Name *(Printed/Typed)* A. ARNOLD NALL
Date 01/22/2010

Title
VP OPERATIONS

Approved by *(Signature)*
Name *(Printed/Typed)*
Date

Title
Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Murchison Oil & Gas Inc.
1100 Mira Vista Boulevard
Plano, Texas 75093-4698

The undersigned accepts all applicable terms, conditions, stipulations and restrictions covering operations conducted on the leased land or portion thereof, as described below:

Lease No:	SHL: LS # NMNM 114347 BHL: LS #NMNM 120349
Well Name:	Carbon Valley 26 Fed Com #1-H
Legal Description of Land:	SL: 1980' FSL & 250' FEL, Unit I BHL: 1980' FSL & 330' FWL, Unit L Sec 26, T16S, R27E Eddy County, New Mexico
Formation(s) (if applicable):	Wolfcamp
Bond Coverage:	$25,000 statewide bond of Murchison Oil & Gas, Inc.
BLM Bond File No:	Personal Statewide Bond NM 2163

1/22/10
Date

Arnold Nall
VP, Operations
Murchison Oil & Gas Inc.

State of New Mexico
Energy, Minerals and Natural Resources Department

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		DOG CANYON; WOLFCAMP

Property Code	Property Name	Well Number
	CARBON VALLEY 26 FEDERAL COM	1H

OGRID No.	Operator Name	Elevation
	MURCHISON OIL & GAS, INC.	3491'

Surface Location

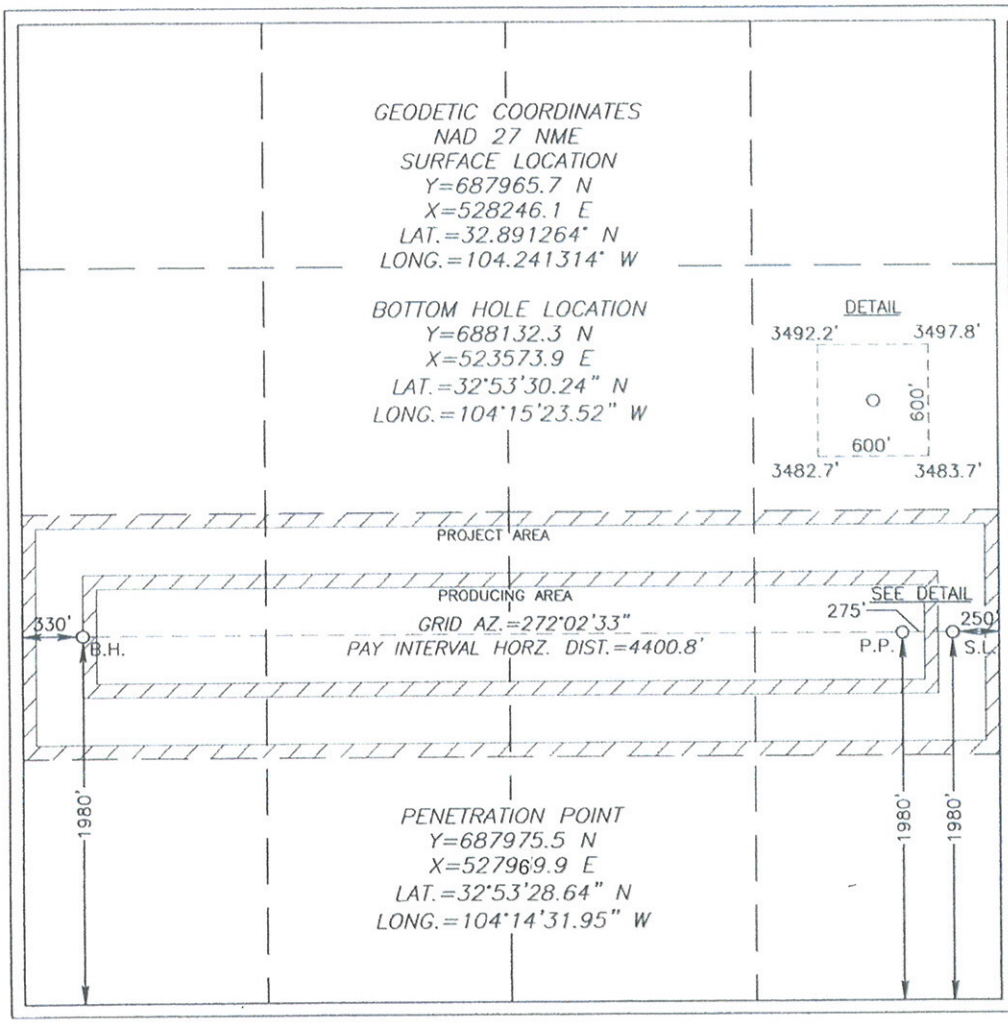
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	26	16-S	27-E		1980	SOUTH	250	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	26	16-S	27-E		1980	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

A. Arnold Nall 1/22/10
Signature Date

A. Arnold Nall
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 21, 2009
Date Surveyed LA REV: 1/22/10
Signature & Seal of Professional Surveyor

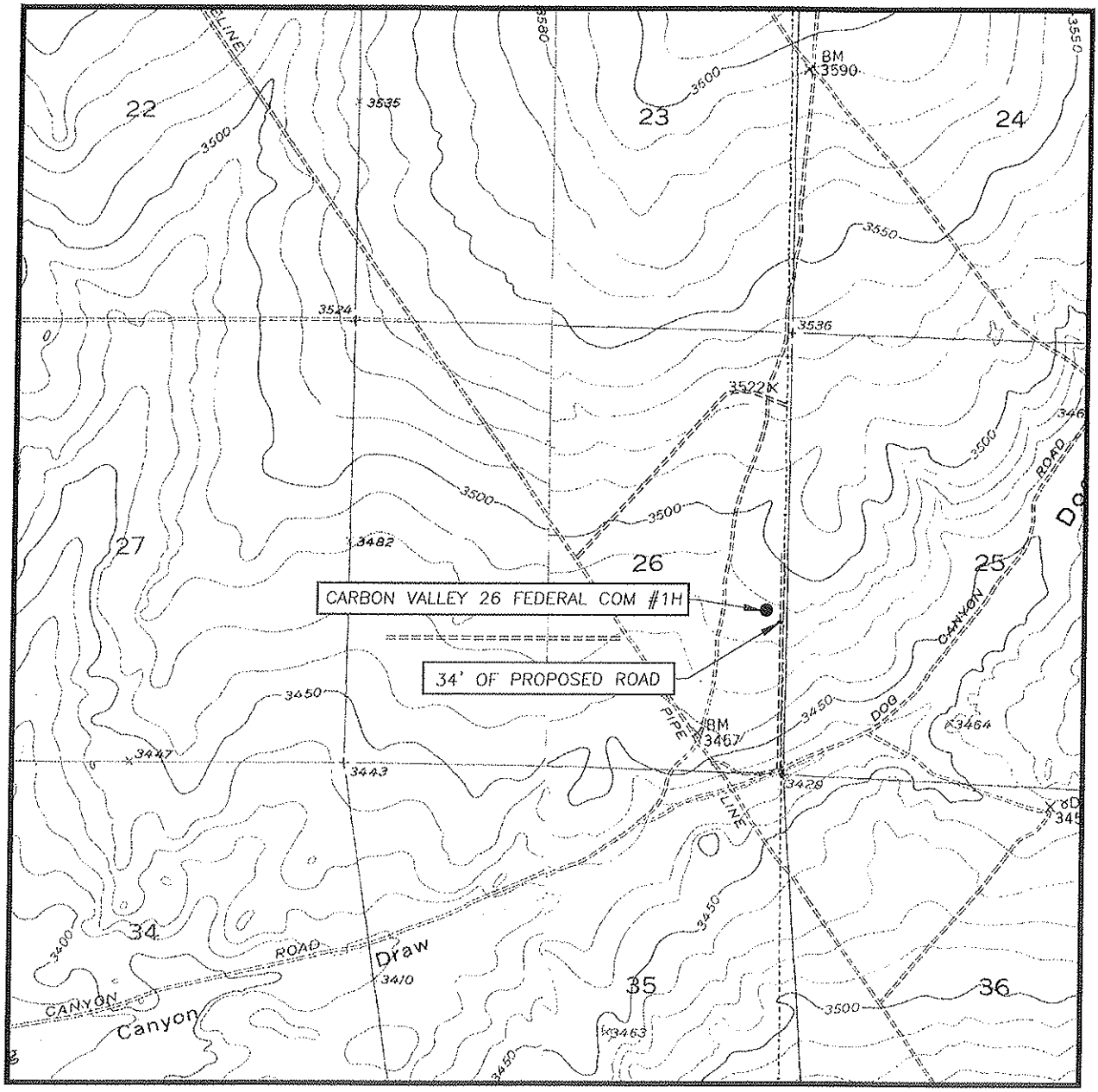
NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 01/22/2010
10.13.0104

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT D

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
ARTESIA NE, N.M. – 10'
DIAMOND MOUND, N.M. – 10'

SEC. 26 TWP. 16-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1980' FSL & 250' FEL

ELEVATION 3491'

OPERATOR MURCHISON OIL & GAS, INC.

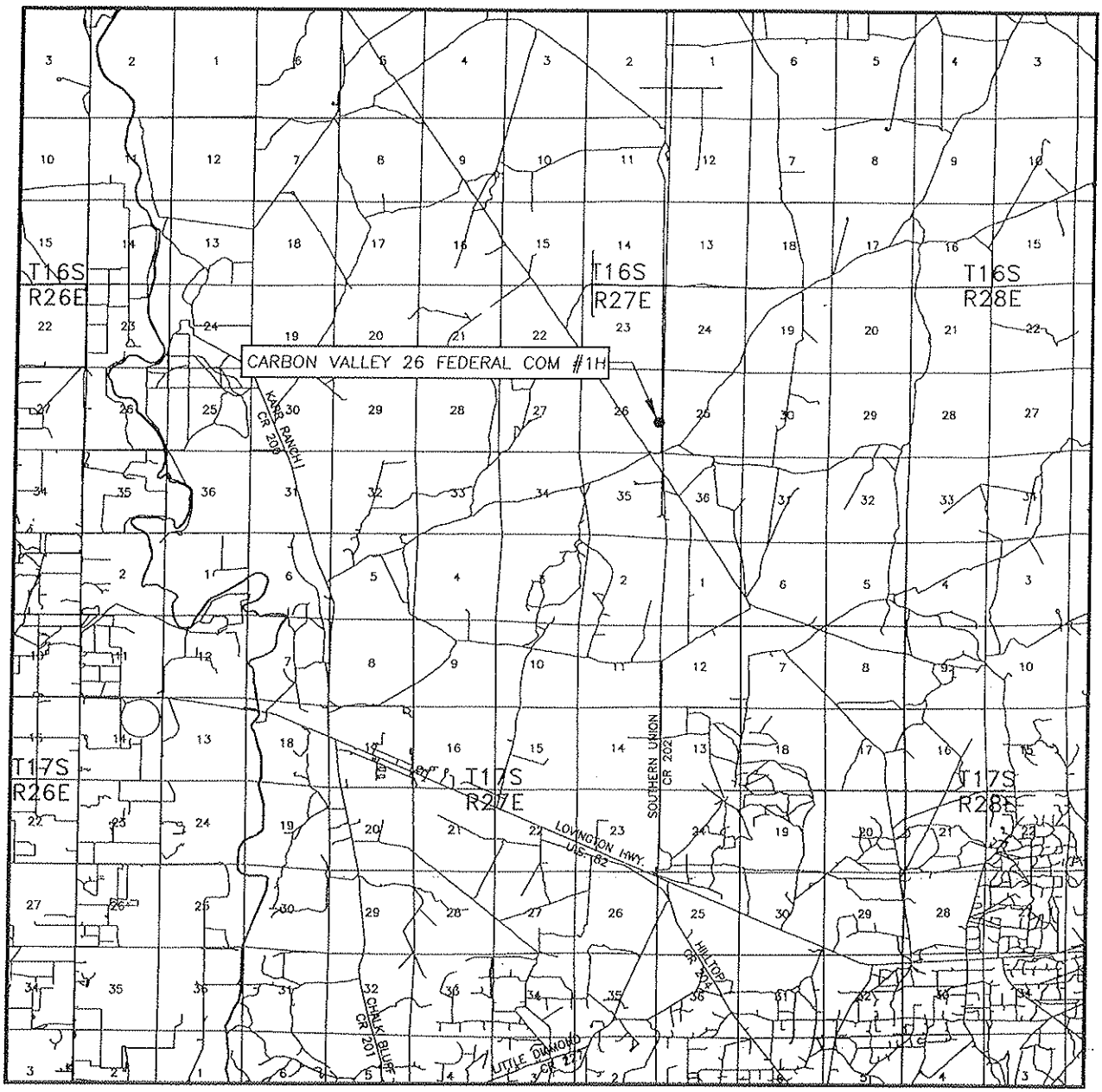
LEASE CARBON VALLEY 26 FED. COM #1H

U.S.G.S. TOPOGRAPHIC MAP
ARTESIA NE, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

EXHIBIT B

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 26 TWP. 16-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1980' FSL & 250' FEL

ELEVATION 3491'

OPERATOR MURCHISON OIL & GAS, INC.

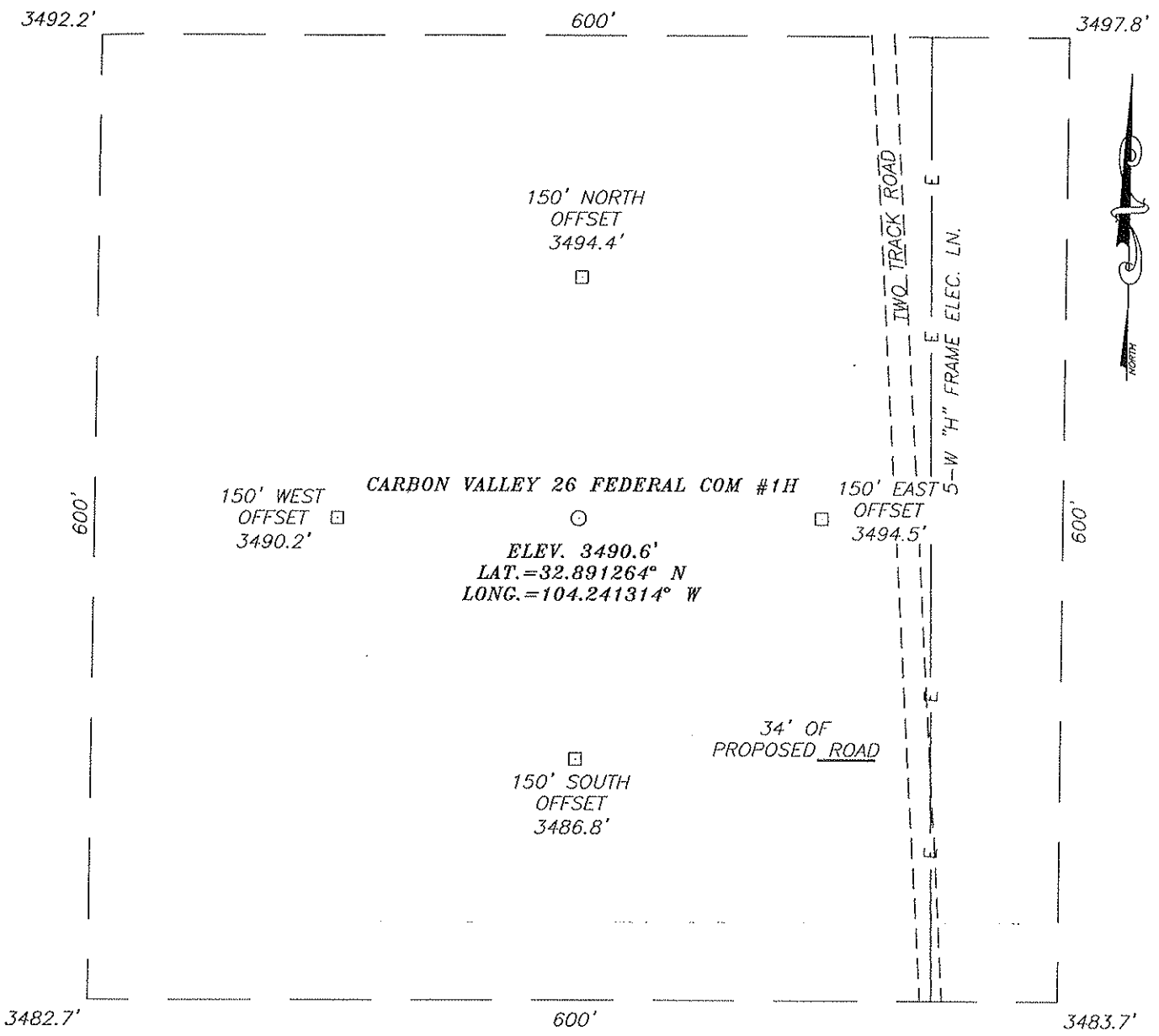
LEASE CARBON VALLEY 26 FED. COM #1H

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

EXHIBIT E-1

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #202, GO NORTH ON CO. RD. #202 APPROX. 3.0 MILES. VEER NORTHEAST AND GO APPROX. 1.2 MILES. VEER NORTHWEST AND GO APPROX. 2.2 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 800 FEET. TURN NORTH AND GO APPROX. 1900 FEET. LOCATION STAKE IS APPROX. 200 FEET WEST.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

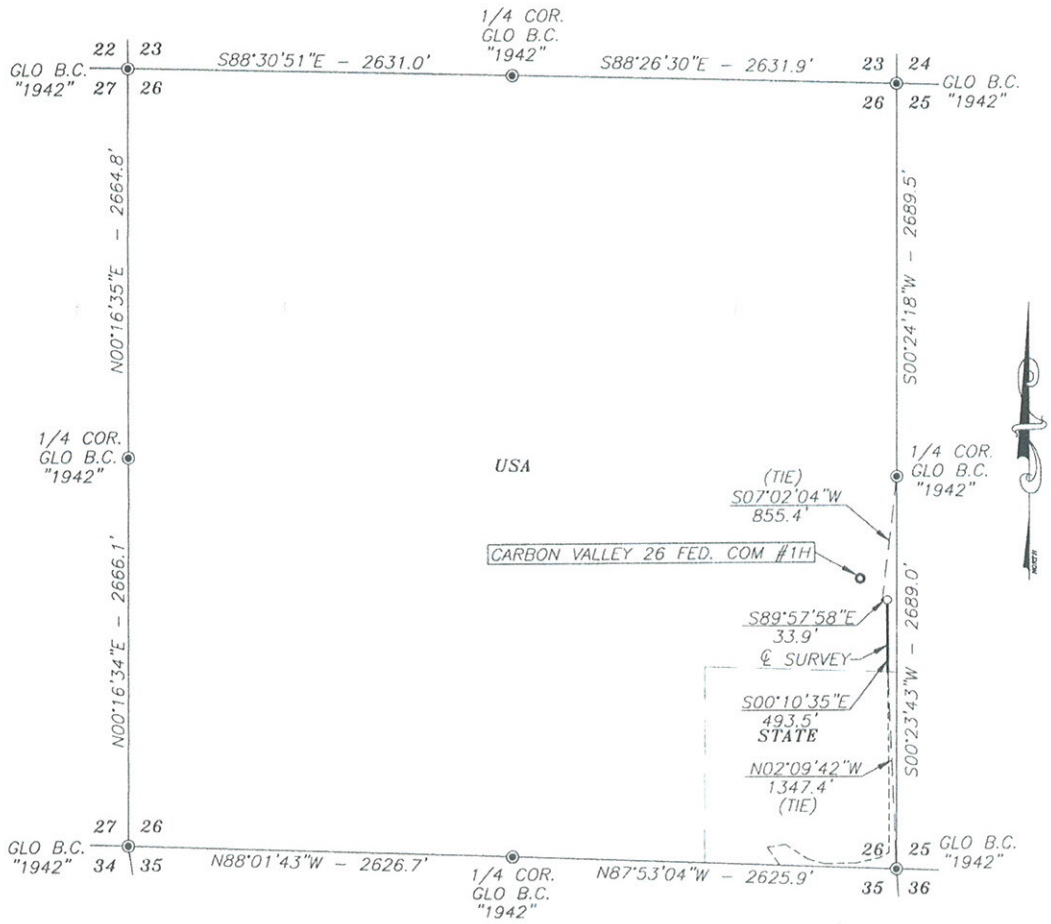
MURCHISON OIL & GAS, INC.

CARBON VALLEY 26 FEDERAL COM #1H WELL
LOCATED 1980 FEET FROM THE SOUTH LINE
AND 250 FEET FROM THE EAST LINE OF SECTION 26,
TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 12/21/09	Sheet 1 of 1 Sheets		
W.O. Number: 09.11.1320	Dr By: LA	Rev 1:N/A	
Date: 12/23/09		09111320	Scale:1"=100'

EXHIBIT E-2

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE AND 527.4 FEET OR 0.100 MILES IN LENGTH CROSSING USA LAND IN SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE: *BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.*

1000 0 1000 2000 FEET

Scale: 1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 1/22/2010

RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

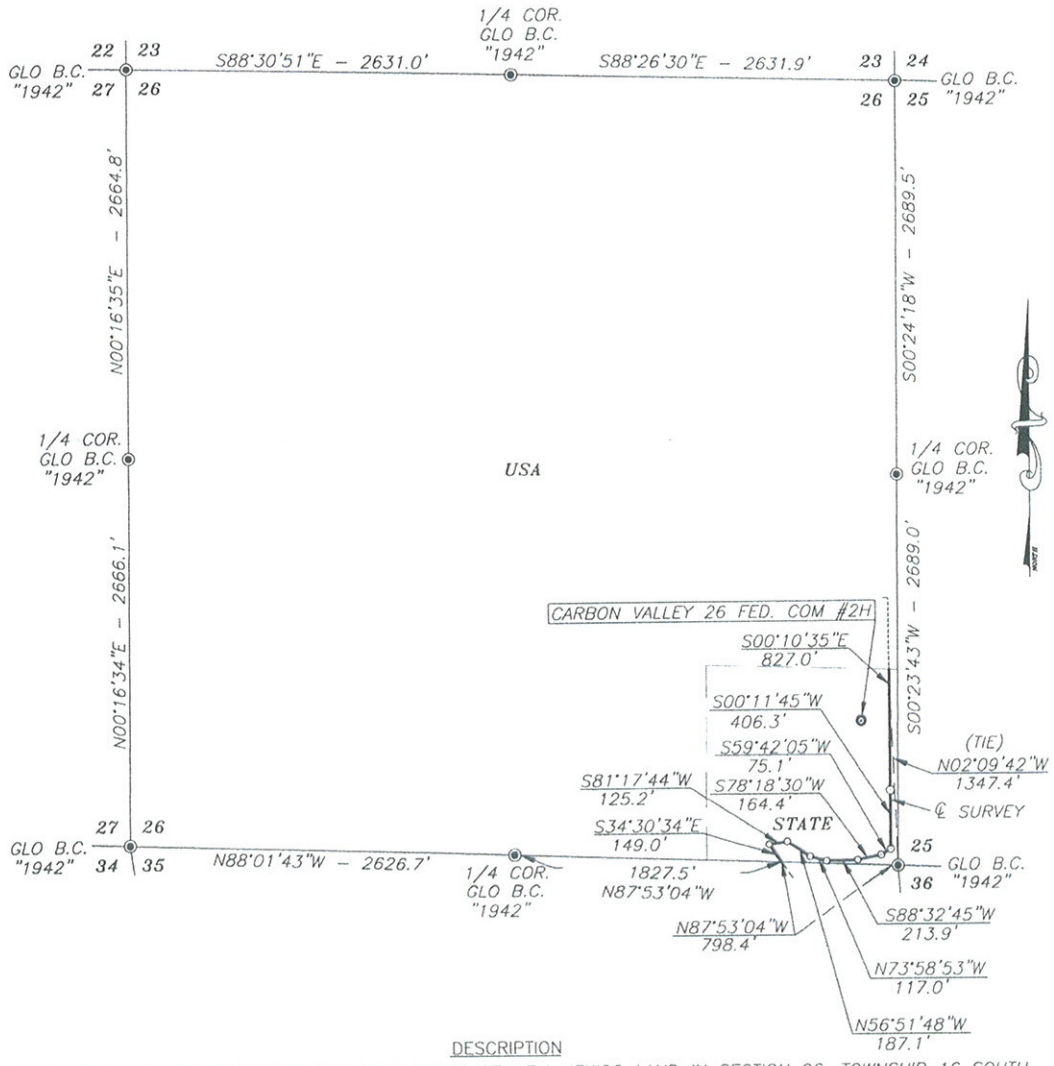
MURCHISON OIL & GAS, INC.

SURVEY OF AN EXSTING ACCESS ROAD CROSSING SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09	Sheet 1 of 1 Sheets
W.O. Number: 10.13.0104	Drawn By: LA
Date: 1/22/10	10130104

EXHIBIT E-3

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET RIGHT AND 10.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION, WHICH LIES N02°09'42"W 1347.4 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION; THEN S00°11'35"E 827.0 FEET; THEN S00°11'45"W 406.3 FEET; THEN S59°42'05"W 75.1 FEET; THEN S78°18'30"W 164.4 FEET; THEN S88°32'45"W 213.9 FEET; THEN N73°58'53"W 117.0 FEET; THEN N56°51'48"W 187.1 FEET; S81°17'44"W 125.2 FEET; THEN S34°30'34"E 149.0 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION, WHICH LIES N87°53'04"W 798.4 FEET FROM THE SOUTHEAST CORNER OF SAID SECTION.

SAID STRIP OF LAND BEING 2265.0 FEET OR 137.27 RODS IN LENGTH, CONTAINING 1.040 ACRES MORE OR LESS AND BEING ENTIRELY LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER.

NOTE: BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

1000 0 1000 2000 FEET
Scale:1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 01/22/2010
RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

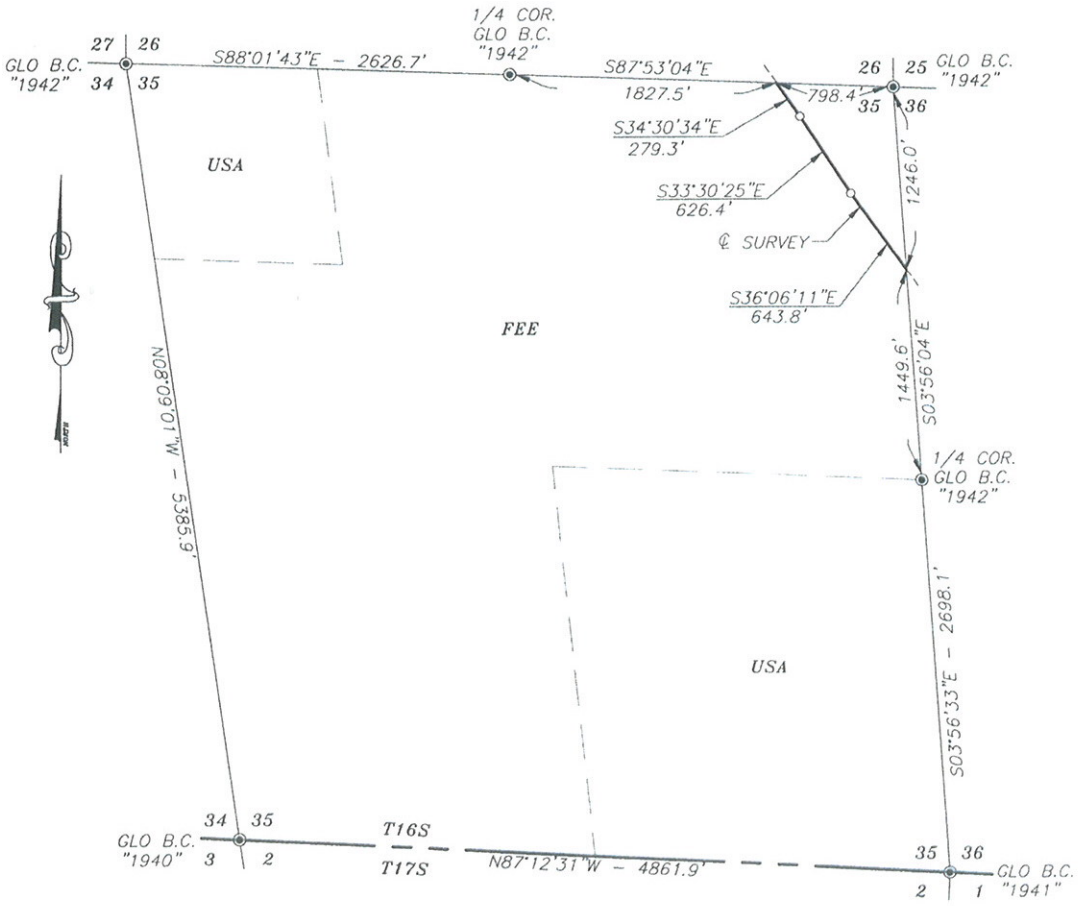
MURCHISON OIL & GAS, INC.

SURVEY OF AN EXISTING ACCESS ROAD CROSSING SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09	Sheet 1 of 1 Sheets
W.O. Number: 10.13.0104	Drawn By: LA
Date: 1/22/10	10130104

EXHIBIT E-4

SECTION 35, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 35, TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF SAID SECTION WHICH LIES N87°53'04"W 798.4 FEET FROM THE NORTHEAST CORNER OF SAID SECTION; THEN S34°30'34"E 279.3 FEET; THEN S33°30'25"E 626.4 FEET; THEN S36°06'11"E 643.8 FEET TO A POINT ON THE EAST LINE OF SAID SECTION WHICH LIES S03°56'04"E 1246.0 FEET FROM THE NORTHEAST CORNER OF SAID SECTION.

TOTAL LENGTH EQUALS 1549.5 FEET OR 93.91 RODS

NOTE: BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

1000 0 1000 2000 FEET

Scale:1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 01/22/2010

RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

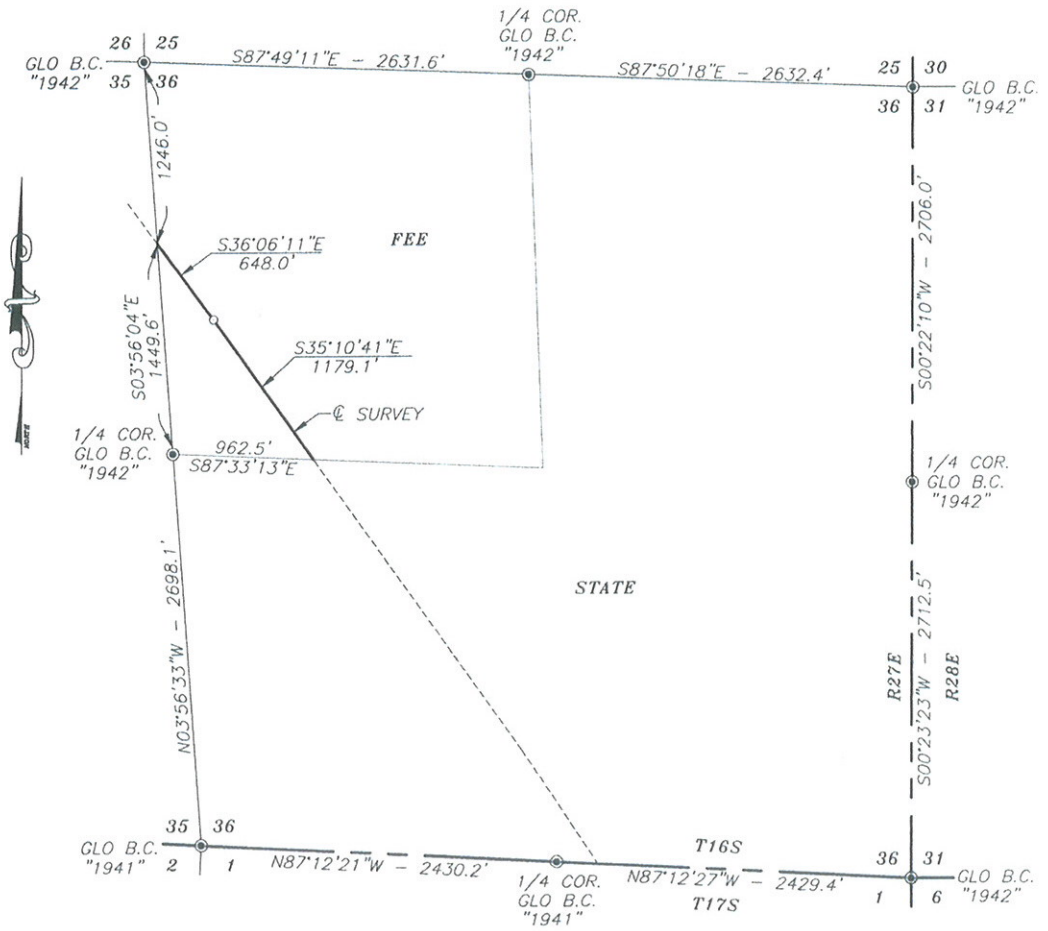
MURCHISON OIL & GAS, INC.

SURVEY OF AN EXISTING ACCESS ROAD CROSSING SECTION 35, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09		Sheet 1 of 1 Sheets	
W.O. Number: 10.13.0104		Drawn By: LA	
Date: 1/22/10		10130104	

EXHIBIT E-5

SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WEST LINE OF SAID SECTION WHICH LIES S03°56'04"E 1246.0 FEET FROM THE NORTHWEST CORNER OF SAID SECTION; THEN S36°06'11"E 648.0 FEET; THEN S35°10'41"E 1179.1 FEET TO A POINT ON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION WHICH LIES S87°33'13"E 962.5 FEET FROM THE WEST QUARTER CORNER OF SAID SECTION.

TOTAL LENGTH EQUALS 1827.1 FEET OR 110.73 RODS

NOTE: BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

1000 0 1000 2000 FEET

Scale:1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Edson 01/22/2010

RONALD J. EDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

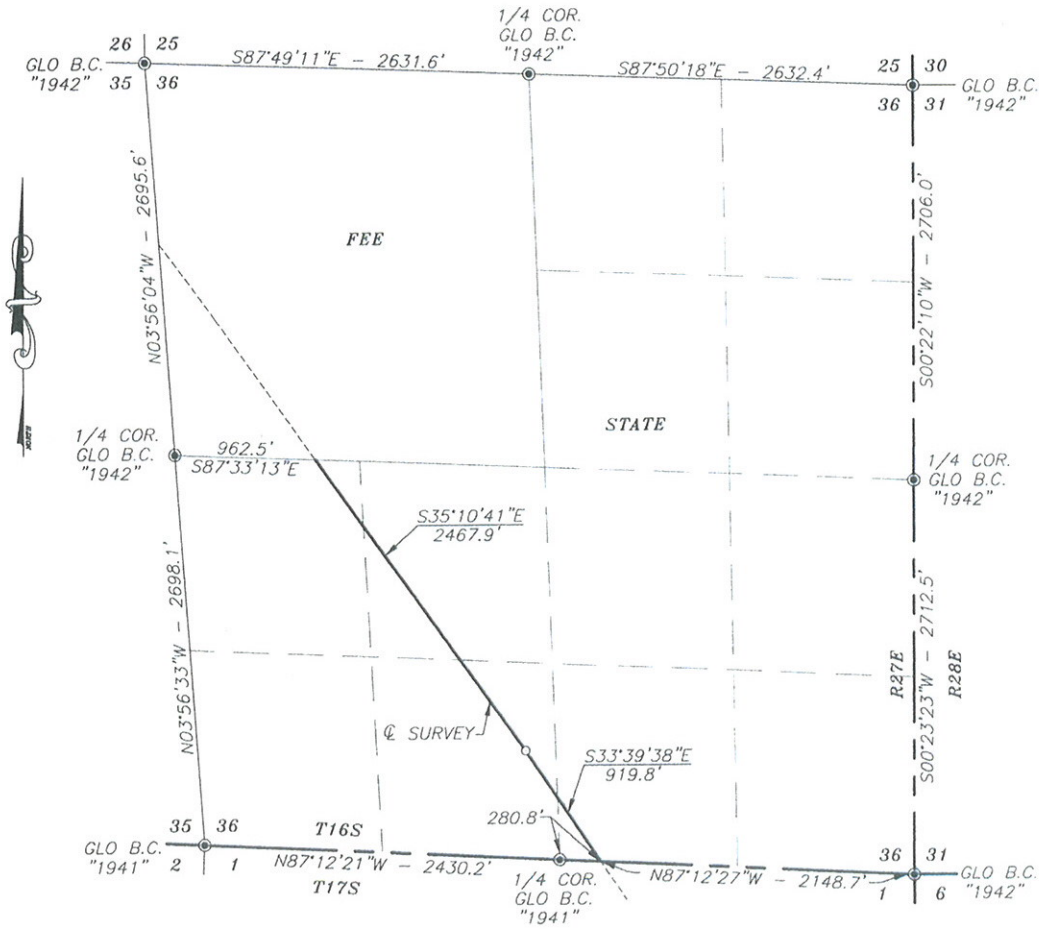
MURCHISON OIL & GAS, INC.

SURVEY OF AN EXISTING ACCESS ROAD CROSSING SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09		Sheet 1 of 1 Sheets	
W.O. Number: 10.13.0104		Drawn By: LA	
Date: 1/22/10		10130104	

EXHIBIT E-6

SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 20.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 10.0 FEET RIGHT AND 10.0 FEET LEFT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT ON THE NORTH LINE OF THE SOUTH HALF OF SAID SECTION, WHICH LIES S87°33'13"E 962.5 FEET FROM THE WEST QUARTER CORNER OF SAID SECTION; THEN S35°10'41"E 2467.9 FEET; THEN S33°39'38"E 919.8 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION, WHICH LIES S87°12'27"E 280.8 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION.

SAID STRIP OF LAND BEING 3387.7 FEET OR 205.32 RODS IN LENGTH, CONTAINING 1.555 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 SW/4	34.21 RODS	OR 0.259 ACRES
NE/4 SW/4	68.80 RODS	OR 0.521 ACRES
SE/4 SW/4	70.19 RODS	OR 0.532 ACRES
SW/4 SE/4	32.12 RODS	OR 0.243 ACRES

NOTE: BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

1000 0 1000 2000 FEET
Scale: 1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 01/22/2010
RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

MURCHISON OIL & GAS, INC.

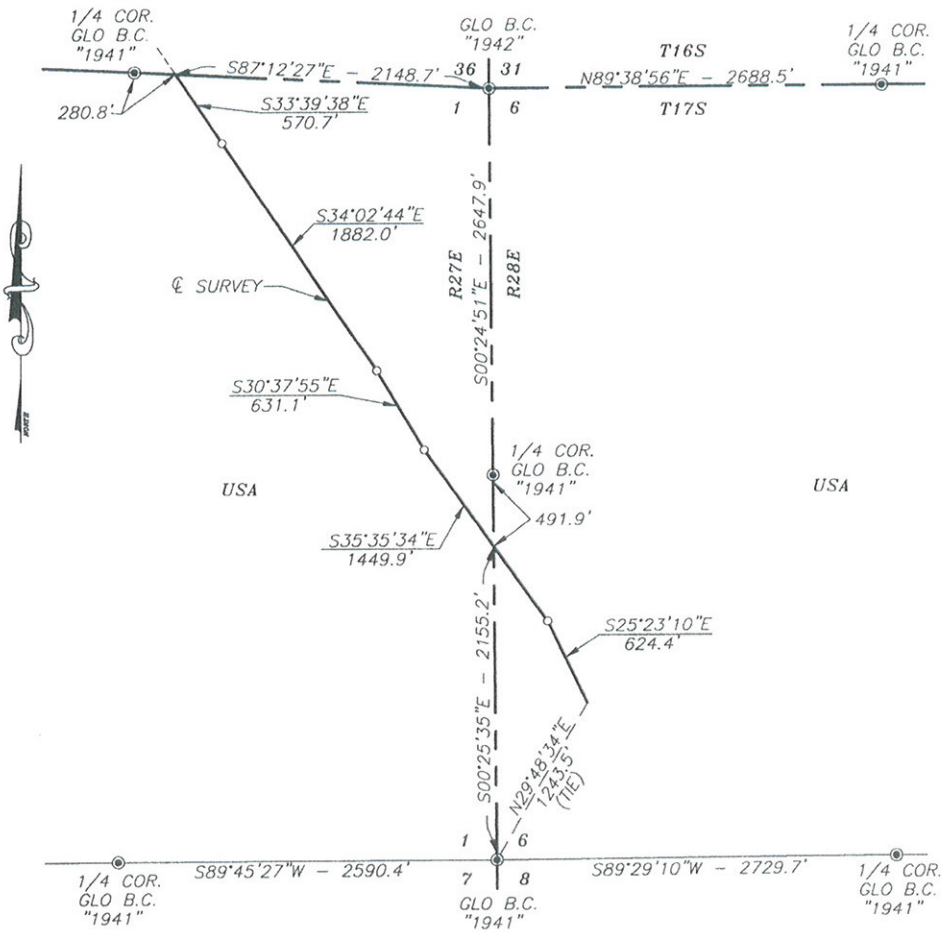
SURVEY OF AN EXISTING ACCESS ROAD CROSSING SECTION 36, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09		Sheet 1 of 1 Sheets	
W.O. Number: 10.13.0104		Drawn By: LA	
Date: 1/22/10		10130104	

EXHIBIT E-7

SECTION 1, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., SECTION 6, TOWNSHIP 17 SOUTH, RANGE 28 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE AND 5158.1 FEET OR 0.977 MILES IN LENGTH CROSSING USA LAND IN SECTION 1, TOWNSHIP 17 SOUTH, RANGE 27 EAST & SECTION 6, TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE: *BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.*

1000 0 1000 2000 FEET

Scale:1"=1000'

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 01/22/2010

RONALD J. EIDSON N.M. P.S. No. 3239

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

MURCHISON OIL & GAS, INC.

SURVEY OF AN EXISTING ACCESS ROAD CROSSING SECTION 1, TOWNSHIP 17 SOUTH, RANGE 27 EAST & SECTION 6, TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM, EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/09	Sheet 1 of 1 Sheets
W.O. Number: 10.13.0104	Drawn By: LA
Date: 1/22/10	10130104

EXHIBIT C-1

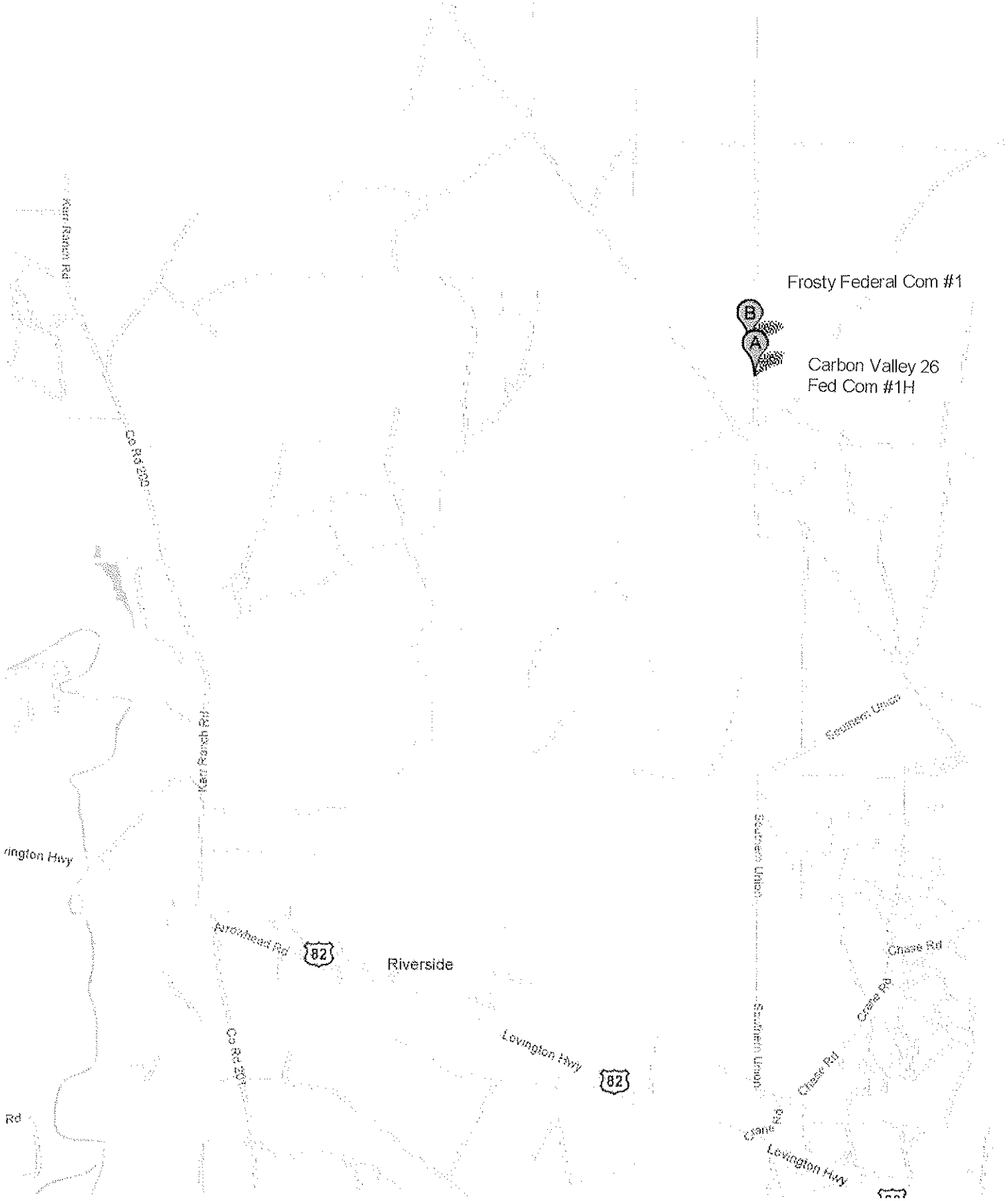
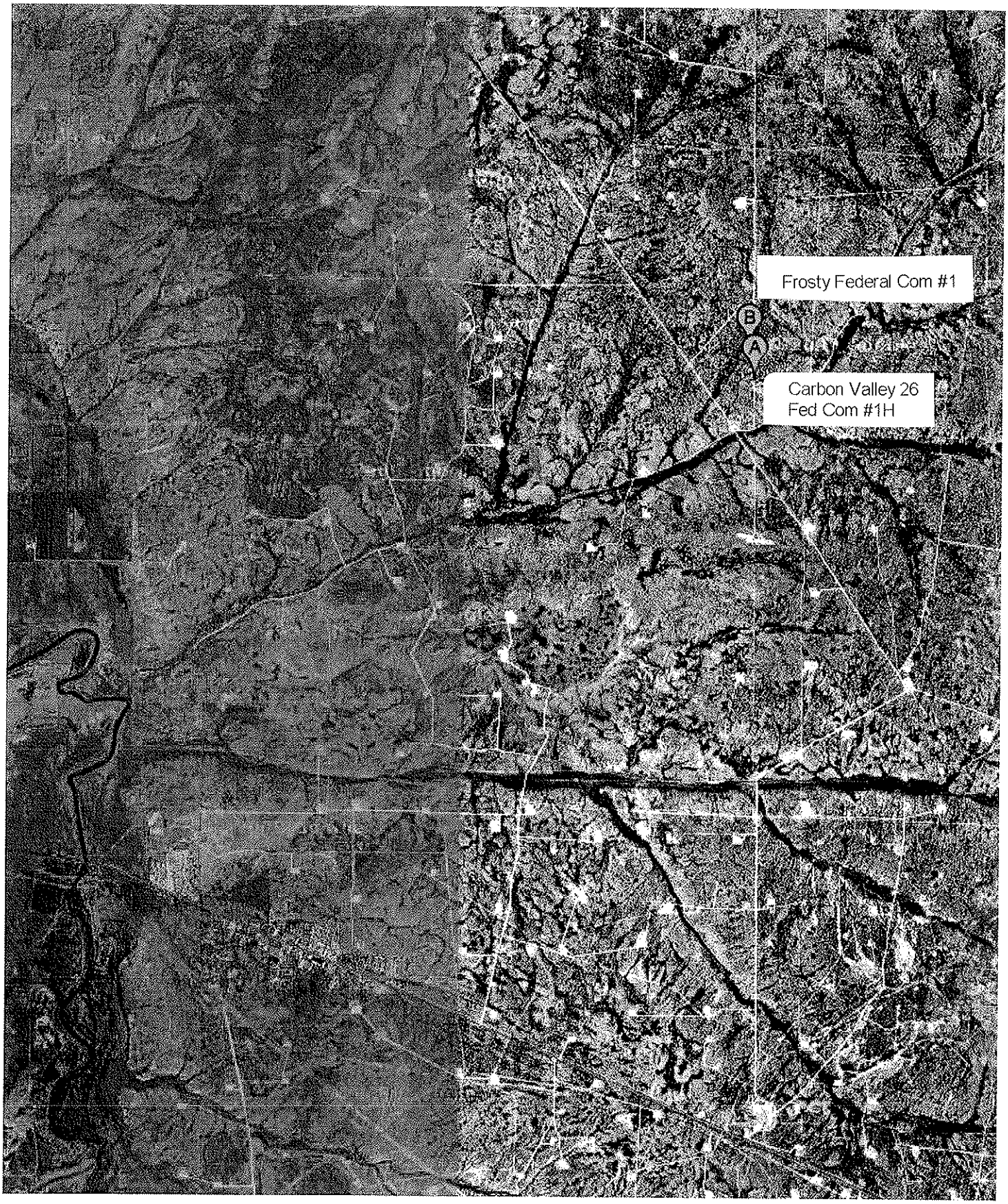

Frosty Federal Com #1
B
A
Carbon Valley 26
Fed Com #1H
Kerr Ranch Rd
Co Rd 202
Kerr Ranch Rd
Southern Union
Southern Union
Southern Union
ington Hwy
Arrowhead Rd
82
Riverside
Co Rd 250
Lovington Hwy
82
Chase Rd
Chase Rd
Chase Rd
Chase Rd
Lovington Hwy
Rd
Map data ©2009 Google -

EXHIBIT C-2



ATTACHMENT TO FORM 3160-3
Murchison Oil & Gas, Inc.
Carbon Valley 26 Fed Com #1-H
SL: 1980' FSL & 250' FEL, UNIT I
BHL: 1980' FSL & 330' FWL, UNIT L
Sec 26, T16S, R27E
Eddy County, New Mexico

1. Proration Unit Spacing: 160 acres

2. Ground Elevation: 3491' Est. RKB 3510'

3. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

	DEPTH (RKB)	SUBSURFACE
Queen	723'	+2787'
Premier	1475'	+2035'
San Andres	1535'	+1975'
Glorietta	2960'	+550'
Yeso	3055'	+455'
Tubb	4275'	-765'
Abo	5264'	-1754'
Wolfcamp	6234'	-2724'
*Pilot Hole – True Vertical Depth	6500'	-2990'

PROPOSED DEPTHS: TVD 6235' and MD 10705'

4. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL, OR GAS

Fresh Water	195' – 215'	Seven Rivers Carbonate
Fresh Water	370' – 395'	Bowers Sand (Seven Rivers)
Oil/Gas	1535'	San Andres
Oil/Gas	2960'	Glorietta
Oil/Gas	4275'	Tubb
Oil/Gas	5264'	Abo
Oil/Gas	6234'	Wolfcamp

5. CASING AND CEMENTING PROGRAM

Casing Size	Hole Size	From To	Weight	Grade	Joint	Conditions
9-5/8"	12-1/4"	0' - 1000'	36.0#	J-55	ST&C	New
7"	8-3/4"	0' – 5700'	26.0#	HCP-110	LT&C	New
4-1/2"	6-1/8"	5600' – 10705'	11.6#	HCP-110	BT&C	New

Casing Size	Burst Rating, psi	Safety Factor	Collapse Rating, psi	Safety Factor	Tension Rating, 1000 lbs.	Safety Factor
9-5/8"	3520	1.25	2020	3.90	394	9.95
7"	9950	3.10	7800	2.60	693	4.70
4-1/2"	10690	3.20	8650	2.60	367	30+

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability.

6. CASING DEPTH AND CEMENTING PROGRAM:

9.625" Surface Casing - Cementing Program
Cement lead with 150 sacks of Interfill Class C + additives with yield = 2.45 cu.ft./sack, tail with 175 sacks Premium Plus + additives with yield = 1.34 cu.ft./sack; sufficient volume of cement will be pumped to ensure cement is circulated to surface.

7" Intermediate Casing and Fiberglass Tubing - Cementing Program
Cement lead with 300 sacks of Interfill Class H + additives with yield = 2.77 cu.ft./sack, tail with 300 sacks Super Class H + additives with yield = 1.61 cu.ft./sack; sufficient volume of cement will be pumped to ensure cement is circulated to surface. Will cement below 7" casing via 2-7/8" fiberglass tubing stinger to adequately plug back vertical pilot hole after logging and prior to drilling curve/horizontal section of well. May perform a 2-stage job utilizing DV tool if determined to be necessary to circulate cement to surface.

4.5" Production Casing - Cementing Program
Plan to utilize 4-1/2" 11.6# HCP-110 BTC Peak completion liner system from RSB packer @ 5600' to TD of 10705' MD. No cement required.

1000' – 10705' 11" 3000# ram type preventers with one set blind rams and one set pipe rams and a 3000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 5500'. See attached Sketch of BOP Equipment.

A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

After setting the 9 5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 3000 psi and 1500 psi respectively. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log.

The BOP's will be maintained ready for use until drilling operations are completed. Pipe and blind rams shall be activated each trip. Annular preventer shall be functionally operated at least weekly.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-open-close sequence of the blind and pipe rams of the hydraulic preventers.

7. MUD PROGRAM

0 – 1000'	Fresh water / native mud. Wt. 8.4 to 8.6 ppg, vis 28-34 sec, Lime for pH control. Paper for seepage. Lost circulation may be encountered.
1000' – 6200'	Cut brine. Wt. 8.4 – 8.8 ppg, vis 28-29 sec, No control water loss, lime for pH control.
6200' – 10705'	Mud up with XCD Polymer mud system. Wt. 9.0 – 9.5 ppg, Vis 32-40 sec, WL 8-10 cc.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run open-hole logs and casing, the viscosity and water loss may have to be adjusted to meet these needs.

Mud system monitoring equipment with derrick floor indicators and visual / audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

A recording pit level indicator.
A pit volume totalizer.
A flowline sensor.

9. TESTING, LOGGING AND CORING PROGRAM

   A. Testing program: None planned.

   B. Mud logging program. Two man unit from 1000' to TD.

   C. Electric logging program: CNL/LDT/CAL/GR, MSFL/HALS/GR.

   D. Coring program: None planned.

10. No abnormal temperatures or pressures are anticipated. Low levels of H2S have been monitored in producing wells in the area, so H2S may be present while drilling the well. An H2S Plan is attached to the Drilling Program. Anticipated Bottom Hole Pressure is 2700 PSI (maximum), and anticipated static Bottom Hole Temperature is 125 degrees Fahrenheit.

11. Anticipated starting date is April 1, 2010. It should take approximately 30 days to drill the well and another 10-15 days to complete.

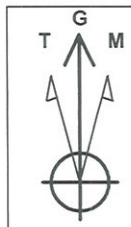
12. A statement accepting responsibility for operations is attached.

13. The Multi-Point Surface Use & Operation Plan is attached.

14. If the Bureau of Land Management needs additional information to evaluate this application, please advise.

Murchison Oil & Gas

PATHFINDER



Azimuths to Grid North
True North: -0.05°
Magnetic North: 8.07°

Magnetic Field
Strength: 49084.4snT
Dip Angle: 60.72°
Date: 01/08/2010
Model: IGRF2010

WELL DETAILS: #1H

Ground Elevation:: 3491.00
RKB Elevation: WELL @ 3509.00ft (18' KB Correction)
Rig Name: 18' KB Correction

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	687965.700	528246.100	32° 53' 28.550 N	104° 14' 28.731 W	

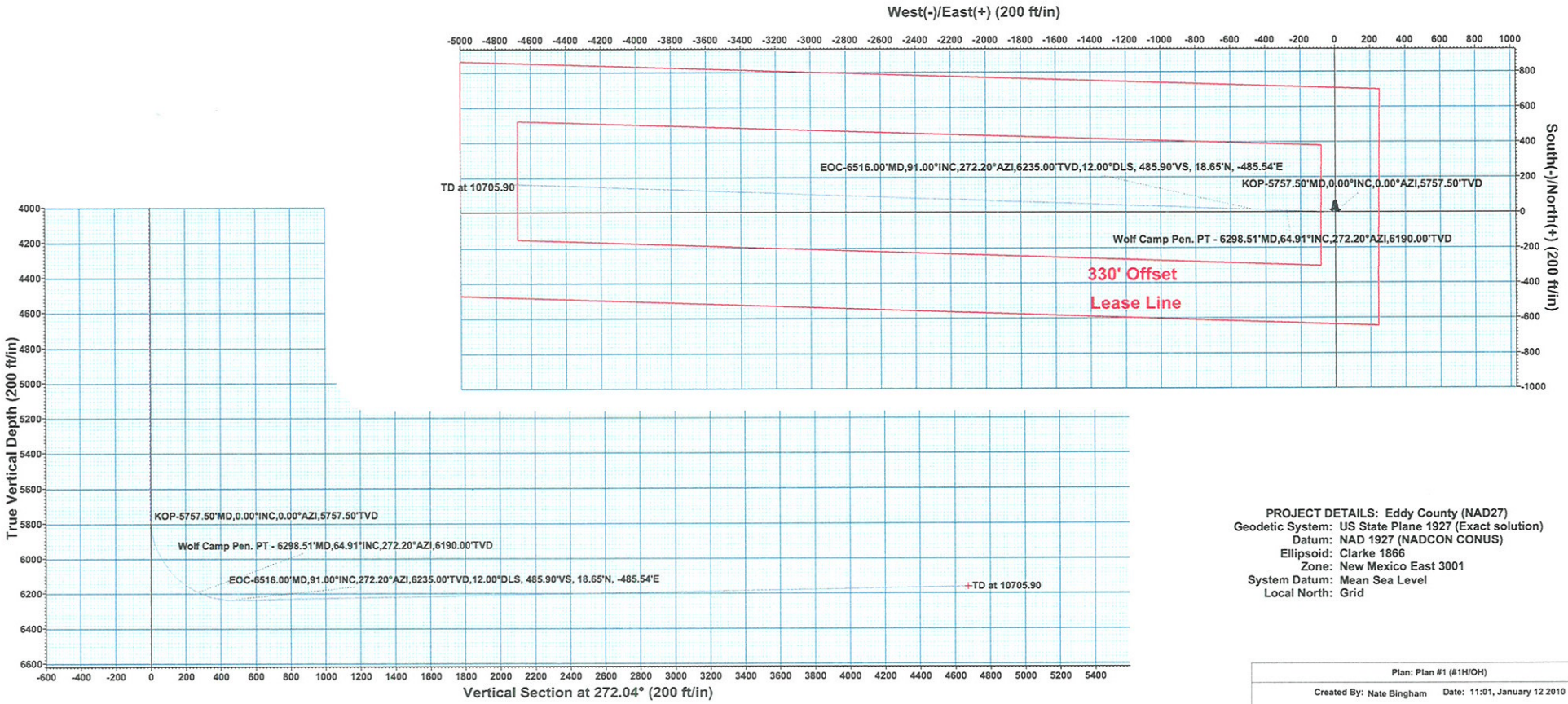
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5757.50	0.00	0.00	5757.50	0.00	0.00	0.00	0.00	0.00	
3	6516.00	91.00	272.04	6235.00	17.30	-485.60	12.00	272.04	485.91	
4	6540.31	91.00	272.04	6234.58	18.16	-509.89	0.01	91.24	510.21	
5	10705.90	91.00	272.04	6161.88	166.60	-4672.20	0.00	0.00	4675.17	PBHL(CV26)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(CV26)	6161.88	166.60	-4672.20	688132.300	523573.900	Point

Project: Eddy County (NAD27)
Site: Carbon Valley 26 Federal Com
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)



PROJECT DETAILS: Eddy County (NAD27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

Plan: Plan #1 (#1H/OH)
Created By: Nate Bingham Date: 11:01, January 12 2010
Checked: _____ Date: _____

Murchison Oil & Gas

Eddy County (NAD27)
Carbon Valley 26 Federal Com
#1H
OH

Plan: Plan #1

Pathfinder X & Y Planning Report

12 January, 2010

PATHFINDER

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County (NAD27)	**TVD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Site:	Carbon Valley 26 Federal Com	**MD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Project Eddy County (NAD27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Carbon Valley 26 Federal Com

Site Position:		**Northing:**	687,965.700 ft	**Latitude:**	32° 53' 28.550 N
From:	Map	**Easting:**	528,246.100 ft	**Longitude:**	104° 14' 28.731 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	0.05 °

Well #1H

Well Position	**+N/-S**	0.00 ft	**Northing:**	687,965.700 ft	**Latitude:**	32° 53' 28.550 N
	+E/-W	0.00 ft	**Easting:**	528,246.100 ft	**Longitude:**	104° 14' 28.731 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,491.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/08/2010	8.12	60.72	49,084

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	272.04

Survey Tool Program **Date** 01/12/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,705.90	Plan #1 (OH)	MWD	MWD - Standard

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
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Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,509.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
100.00	0.00	0.00	100.00	-3,409.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
200.00	0.00	0.00	200.00	-3,309.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
300.00	0.00	0.00	300.00	-3,209.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
400.00	0.00	0.00	400.00	-3,109.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
500.00	0.00	0.00	500.00	-3,009.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
600.00	0.00	0.00	600.00	-2,909.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
700.00	0.00	0.00	700.00	-2,809.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
800.00	0.00	0.00	800.00	-2,709.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
900.00	0.00	0.00	900.00	-2,609.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,000.00	0.00	0.00	1,000.00	-2,509.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,100.00	0.00	0.00	1,100.00	-2,409.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,200.00	0.00	0.00	1,200.00	-2,309.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,300.00	0.00	0.00	1,300.00	-2,209.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,400.00	0.00	0.00	1,400.00	-2,109.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,500.00	0.00	0.00	1,500.00	-2,009.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,600.00	0.00	0.00	1,600.00	-1,909.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,700.00	0.00	0.00	1,700.00	-1,809.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,800.00	0.00	0.00	1,800.00	-1,709.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
1,900.00	0.00	0.00	1,900.00	-1,609.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,000.00	0.00	0.00	2,000.00	-1,509.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,100.00	0.00	0.00	2,100.00	-1,409.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,200.00	0.00	0.00	2,200.00	-1,309.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,300.00	0.00	0.00	2,300.00	-1,209.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,400.00	0.00	0.00	2,400.00	-1,109.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,500.00	0.00	0.00	2,500.00	-1,009.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,600.00	0.00	0.00	2,600.00	-909.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
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Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-809.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,800.00	0.00	0.00	2,800.00	-709.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
2,900.00	0.00	0.00	2,900.00	-609.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,000.00	0.00	0.00	3,000.00	-509.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,100.00	0.00	0.00	3,100.00	-409.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,200.00	0.00	0.00	3,200.00	-309.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,300.00	0.00	0.00	3,300.00	-209.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,400.00	0.00	0.00	3,400.00	-109.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,500.00	0.00	0.00	3,500.00	-9.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,600.00	0.00	0.00	3,600.00	91.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,700.00	0.00	0.00	3,700.00	191.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,800.00	0.00	0.00	3,800.00	291.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
3,900.00	0.00	0.00	3,900.00	391.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,000.00	0.00	0.00	4,000.00	491.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,100.00	0.00	0.00	4,100.00	591.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,200.00	0.00	0.00	4,200.00	691.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,300.00	0.00	0.00	4,300.00	791.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,400.00	0.00	0.00	4,400.00	891.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,500.00	0.00	0.00	4,500.00	991.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,600.00	0.00	0.00	4,600.00	1,091.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,700.00	0.00	0.00	4,700.00	1,191.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,800.00	0.00	0.00	4,800.00	1,291.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
4,900.00	0.00	0.00	4,900.00	1,391.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,000.00	0.00	0.00	5,000.00	1,491.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,100.00	0.00	0.00	5,100.00	1,591.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,200.00	0.00	0.00	5,200.00	1,691.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,300.00	0.00	0.00	5,300.00	1,791.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
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Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	1,891.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,500.00	0.00	0.00	5,500.00	1,991.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,600.00	0.00	0.00	5,600.00	2,091.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,700.00	0.00	0.00	5,700.00	2,191.00	0.00	0.00	0.00	0.00	687,965.70	528,246.10
5,757.50	0.00	0.00	5,757.50	2,248.50	0.00	0.00	0.00	0.00	687,965.70	528,246.10
KOP-5757.50'MD,0.00°INC,0.00°AZI,5757.50'TVD										
5,775.00	2.10	272.04	5,775.00	2,266.00	0.01	-0.32	0.32	12.00	687,965.71	528,245.78
5,800.00	5.10	272.04	5,799.94	2,290.94	0.07	-1.89	1.89	12.00	687,965.77	528,244.21
5,825.00	8.10	272.04	5,824.78	2,315.78	0.17	-4.76	4.76	12.00	687,965.87	528,241.34
5,850.00	11.10	272.04	5,849.42	2,340.42	0.32	-8.92	8.93	12.00	687,966.02	528,237.18
5,875.00	14.10	272.04	5,873.82	2,364.82	0.51	-14.37	14.38	12.00	687,966.21	528,231.73
5,900.00	17.10	272.04	5,897.89	2,388.89	0.75	-21.09	21.10	12.00	687,966.45	528,225.01
5,925.00	20.10	272.04	5,921.59	2,412.59	1.03	-29.06	29.07	12.00	687,966.73	528,217.04
5,950.00	23.09	272.04	5,944.83	2,435.83	1.36	-38.25	38.27	12.00	687,967.06	528,207.85
5,975.00	26.09	272.04	5,967.56	2,458.56	1.73	-48.65	48.68	12.00	687,967.43	528,197.45
6,000.00	29.09	272.04	5,989.71	2,480.71	2.14	-60.22	60.26	12.00	687,967.84	528,185.88
6,025.00	32.09	272.04	6,011.23	2,502.23	2.60	-72.93	72.98	12.00	687,968.30	528,173.17
6,050.00	35.09	272.04	6,032.05	2,523.05	3.09	-86.75	86.81	12.00	687,968.79	528,159.35
6,075.00	38.09	272.04	6,052.12	2,543.12	3.62	-101.65	101.71	12.00	687,969.32	528,144.45
6,100.00	41.09	272.04	6,071.39	2,562.39	4.19	-117.57	117.64	12.00	687,969.89	528,128.53
6,125.00	44.09	272.04	6,089.79	2,580.79	4.79	-134.47	134.56	12.00	687,970.49	528,111.63
6,150.00	47.09	272.04	6,107.28	2,598.28	5.43	-152.32	152.41	12.00	687,971.13	528,093.78
6,175.00	50.09	272.04	6,123.82	2,614.82	6.09	-171.05	171.16	12.00	687,971.79	528,075.05
6,200.00	53.09	272.04	6,139.35	2,630.35	6.79	-190.63	190.75	12.00	687,972.49	528,055.47
6,225.00	56.09	272.04	6,153.83	2,644.83	7.52	-210.99	211.12	12.00	687,973.22	528,035.11
6,250.00	59.09	272.04	6,167.23	2,658.23	8.27	-232.08	232.22	12.00	687,973.97	528,014.02
6,275.00	62.09	272.04	6,179.51	2,670.51	9.04	-253.84	254.00	12.00	687,974.74	527,992.26

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County (NAD27)	**TVD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Site:	Carbon Valley 26 Federal Com	**MD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
6,300.00	65.09	272.04	6,190.63	2,681.63	9.84	-276.21	276.39	12.00	687,975.54	527,969.89
6,325.00	68.08	272.04	6,200.56	2,691.56	10.66	-299.14	299.32	12.00	687,976.36	527,946.96
6,350.00	71.08	272.04	6,209.28	2,700.28	11.49	-322.55	322.75	12.00	687,977.19	527,923.55
6,375.00	74.08	272.04	6,216.76	2,707.76	12.34	-346.38	346.60	12.00	687,978.04	527,899.72
6,400.00	77.08	272.04	6,222.99	2,713.99	13.20	-370.58	370.81	12.00	687,978.90	527,875.52
6,425.00	80.08	272.04	6,227.94	2,718.94	14.07	-395.06	395.32	12.00	687,979.77	527,851.04
6,450.00	83.08	272.04	6,231.60	2,722.60	14.95	-419.78	420.04	12.00	687,980.65	527,826.32
6,475.00	86.08	272.04	6,233.96	2,724.96	15.84	-444.65	444.93	12.00	687,981.54	527,801.45
6,500.00	89.08	272.04	6,235.01	2,726.01	16.73	-469.61	469.90	12.00	687,982.43	527,776.49
6,516.00	91.00	272.04	6,235.00	2,726.00	17.30	-485.60	485.91	12.00	687,983.00	527,760.50
EOC-6516.00'MD,91.00°INC,272.20°AZI,6235.00'TVD,12.00°DLS, 485.90'VS, 18.65'N, -485.54'E										
6,540.31	91.00	272.04	6,234.58	2,725.58	18.16	-509.89	510.21	0.01	687,983.86	527,736.21
6,600.00	91.00	272.04	6,233.53	2,724.53	20.29	-569.53	569.89	0.00	687,985.99	527,676.57
6,700.00	91.00	272.04	6,231.79	2,722.79	23.85	-669.45	669.87	0.00	687,989.55	527,576.65
6,800.00	91.00	272.04	6,230.04	2,721.04	27.42	-769.37	769.86	0.00	687,993.12	527,476.73
6,900.00	91.00	272.04	6,228.30	2,719.30	30.98	-869.29	869.84	0.00	687,996.68	527,376.81
7,000.00	91.00	272.04	6,226.55	2,717.55	34.54	-969.21	969.83	0.00	688,000.24	527,276.89
7,100.00	91.00	272.04	6,224.81	2,715.81	38.11	-1,069.13	1,069.81	0.00	688,003.81	527,176.97
7,200.00	91.00	272.04	6,223.06	2,714.06	41.67	-1,169.06	1,169.80	0.00	688,007.37	527,077.04
7,300.00	91.00	272.04	6,221.32	2,712.32	45.23	-1,268.98	1,269.78	0.00	688,010.93	526,977.12
7,400.00	91.00	272.04	6,219.57	2,710.57	48.80	-1,368.90	1,369.77	0.00	688,014.50	526,877.20
7,500.00	91.00	272.04	6,217.83	2,708.83	52.36	-1,468.82	1,469.75	0.00	688,018.06	526,777.28
7,600.00	91.00	272.04	6,216.08	2,707.08	55.92	-1,568.74	1,569.74	0.00	688,021.62	526,677.36
7,700.00	91.00	272.04	6,214.34	2,705.34	59.49	-1,668.66	1,669.72	0.00	688,025.19	526,577.44
7,800.00	91.00	272.04	6,212.59	2,703.59	63.05	-1,768.58	1,769.71	0.00	688,028.75	526,477.52
7,900.00	91.00	272.04	6,210.85	2,701.85	66.61	-1,868.50	1,869.69	0.00	688,032.31	526,377.60
8,000.00	91.00	272.04	6,209.10	2,700.10	70.18	-1,968.43	1,969.68	0.00	688,035.88	526,277.67

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County (NAD27)	**TVD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Site:	Carbon Valley 26 Federal Com	**MD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,100.00	91.00	272.04	6,207.36	2,698.36	73.74	-2,068.35	2,069.66	0.00	688,039.44	526,177.75
8,200.00	91.00	272.04	6,205.61	2,696.61	77.30	-2,168.27	2,169.65	0.00	688,043.00	526,077.83
8,300.00	91.00	272.04	6,203.87	2,694.87	80.87	-2,268.19	2,269.63	0.00	688,046.57	525,977.91
8,400.00	91.00	272.04	6,202.12	2,693.12	84.43	-2,368.11	2,369.62	0.00	688,050.13	525,877.99
8,500.00	91.00	272.04	6,200.38	2,691.38	87.99	-2,468.03	2,469.60	0.00	688,053.69	525,778.07
8,600.00	91.00	272.04	6,198.63	2,689.63	91.56	-2,567.95	2,569.59	0.00	688,057.26	525,678.15
8,700.00	91.00	272.04	6,196.89	2,687.89	95.12	-2,667.88	2,669.57	0.00	688,060.82	525,578.22
8,800.00	91.00	272.04	6,195.14	2,686.14	98.68	-2,767.80	2,769.55	0.00	688,064.38	525,478.30
8,900.00	91.00	272.04	6,193.40	2,684.40	102.25	-2,867.72	2,869.54	0.00	688,067.95	525,378.38
9,000.00	91.00	272.04	6,191.65	2,682.65	105.81	-2,967.64	2,969.52	0.00	688,071.51	525,278.46
9,100.00	91.00	272.04	6,189.91	2,680.91	109.37	-3,067.56	3,069.51	0.00	688,075.07	525,178.54
9,200.00	91.00	272.04	6,188.16	2,679.16	112.94	-3,167.48	3,169.49	0.00	688,078.64	525,078.62
9,300.00	91.00	272.04	6,186.42	2,677.42	116.50	-3,267.40	3,269.48	0.00	688,082.20	524,978.70
9,400.00	91.00	272.04	6,184.67	2,675.67	120.07	-3,367.32	3,369.46	0.00	688,085.77	524,878.78
9,500.00	91.00	272.04	6,182.92	2,673.92	123.63	-3,467.25	3,469.45	0.00	688,089.33	524,778.85
9,600.00	91.00	272.04	6,181.18	2,672.18	127.19	-3,567.17	3,569.43	0.00	688,092.89	524,678.93
9,700.00	91.00	272.04	6,179.43	2,670.43	130.76	-3,667.09	3,669.42	0.00	688,096.46	524,579.01
9,800.00	91.00	272.04	6,177.69	2,668.69	134.32	-3,767.01	3,769.40	0.00	688,100.02	524,479.09
9,900.00	91.00	272.04	6,175.94	2,666.94	137.88	-3,866.93	3,869.39	0.00	688,103.58	524,379.17
10,000.00	91.00	272.04	6,174.20	2,665.20	141.45	-3,966.85	3,969.37	0.00	688,107.15	524,279.25
10,100.00	91.00	272.04	6,172.45	2,663.45	145.01	-4,066.77	4,069.36	0.00	688,110.71	524,179.33
10,200.00	91.00	272.04	6,170.71	2,661.71	148.57	-4,166.69	4,169.34	0.00	688,114.27	524,079.41
10,300.00	91.00	272.04	6,168.96	2,659.96	152.14	-4,266.62	4,269.33	0.00	688,117.84	523,979.48
10,400.00	91.00	272.04	6,167.22	2,658.22	155.70	-4,366.54	4,369.31	0.00	688,121.40	523,879.56
10,500.00	91.00	272.04	6,165.47	2,656.47	159.26	-4,466.46	4,469.30	0.00	688,124.96	523,779.64
10,600.00	91.00	272.04	6,163.73	2,654.73	162.83	-4,566.38	4,569.28	0.00	688,128.53	523,679.72

Company:	Murchison Oil & Gas	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County (NAD27)	**TVD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Site:	Carbon Valley 26 Federal Com	**MD Reference:**	WELL @ 3509.00ft (18' KB Correction)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,705.90	91.00	272.04	6,161.88	2,652.88	166.60	-4,672.20	4,675.16	0.00	688,132.30	523,573.90
TD at 10705.90 - PBHL(CV26)										

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(CV26) - plan hits target center - Point	0.00	0.00	6,161.88	166.60	-4,672.20	688,132.300	523,573.900	32° 53' 30.236 N	104° 15' 23.525 W

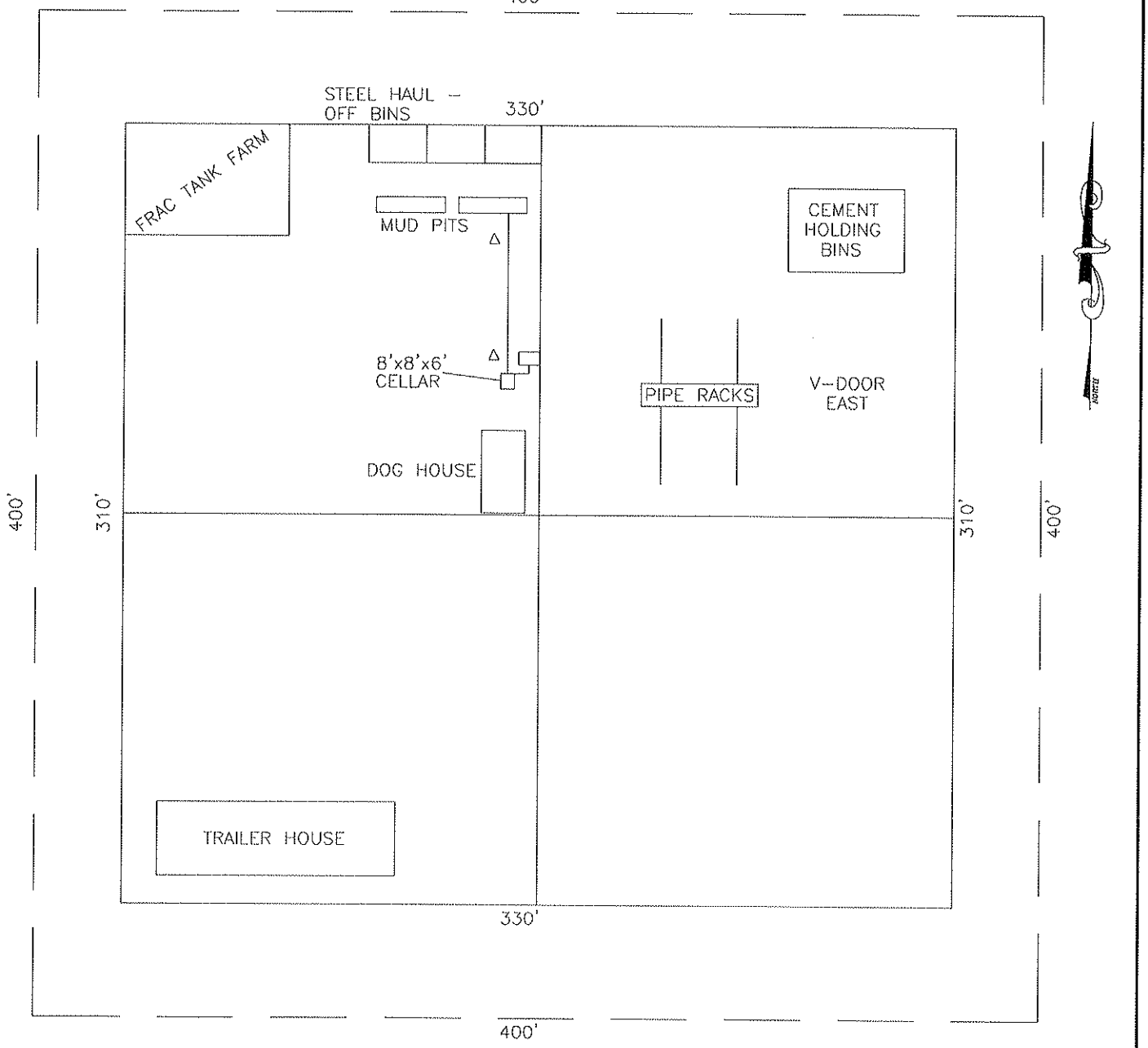
Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,757.50	5,757.50	0.00	0.00	KOP-5757.50'MD,0.00°INC,0.00°AZI,5757.50'TVD
6,298.51	6,190.00	9.79	-274.87	Wolf Camp Pen. PT - 6298.51'MD,64.91°INC,272.20°AZI,6190.00'TVD
6,516.00	6,235.00	17.30	-485.60	EOC-6516.00'MD,91.00°INC,272.20°AZI,6235.00'TVD,12.00°DLS, 485
10,705.90				TD at 10705.90

Checked By: _____ Approved By: _____ Date: _____

EXHIBIT F

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



MURCHISON OIL & GAS, INC.
CARBON VALLEY 26 FEDERAL COM #1H
ELEV. 3491'

GEODETIC COORDINATES
NAD 27 NME
Y=687965.7 N
X=528246.1 E
LAT.=32.891264° N
LONG.=104.241314° W

60 0 60 120 Feet
Scale: 1"=60'

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

MURCHISON OIL & GAS, INC.

CARBON VALLEY 26 FEDERAL COM #1H WELL
LOCATED 1980 FEET FROM THE SOUTH LINE
AND 250 FEET FROM THE EAST LINE OF SECTION 26,
TOWNSHIP 16 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 12/21/09	Sheet 1 of 1 Sheets		
W.O. Number: 10.13.0104	Dr By: LA		Rev 1:N/A
Date: 1/22/10	10130104		Scale: 1"=100'

EXHIBIT G

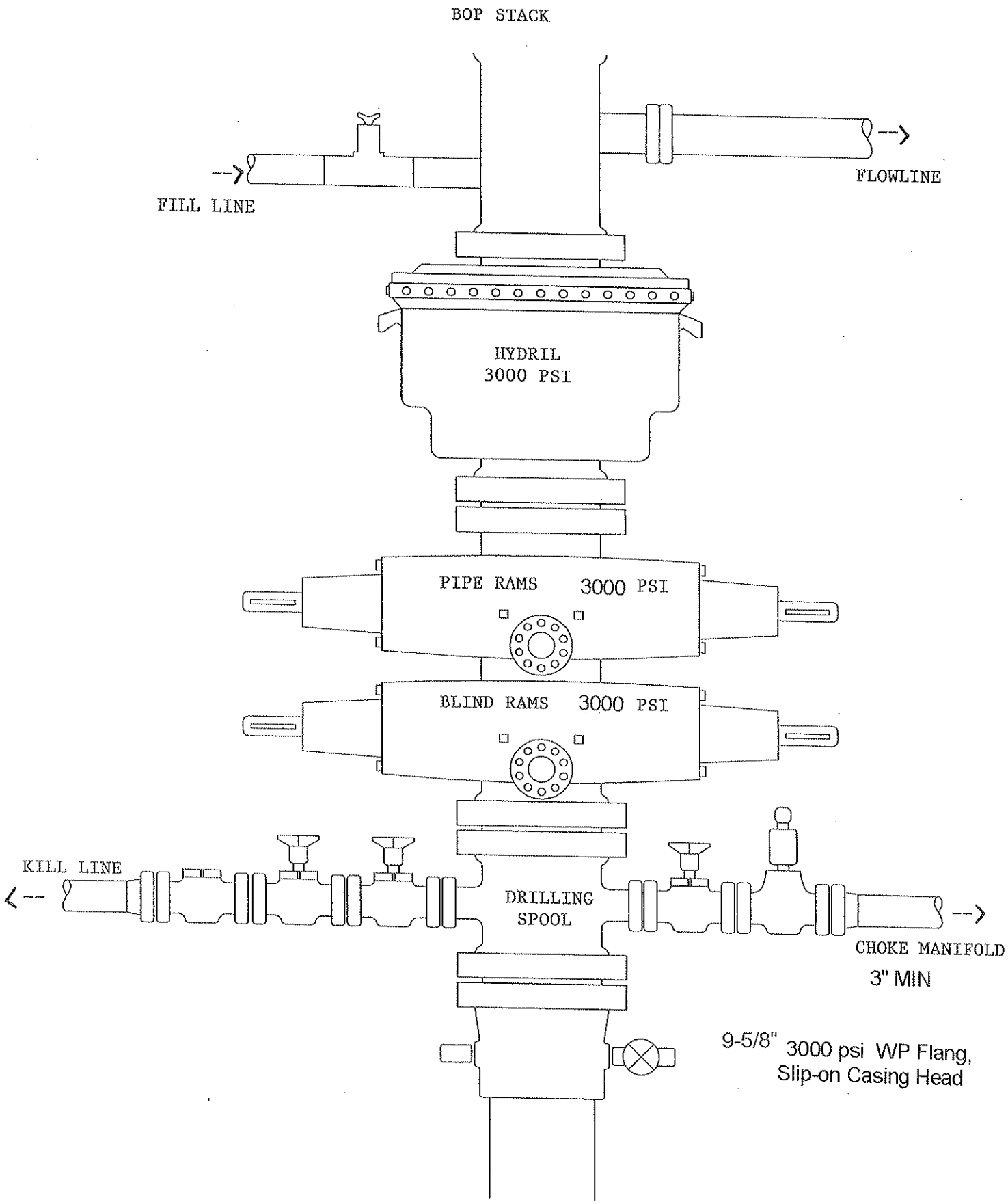
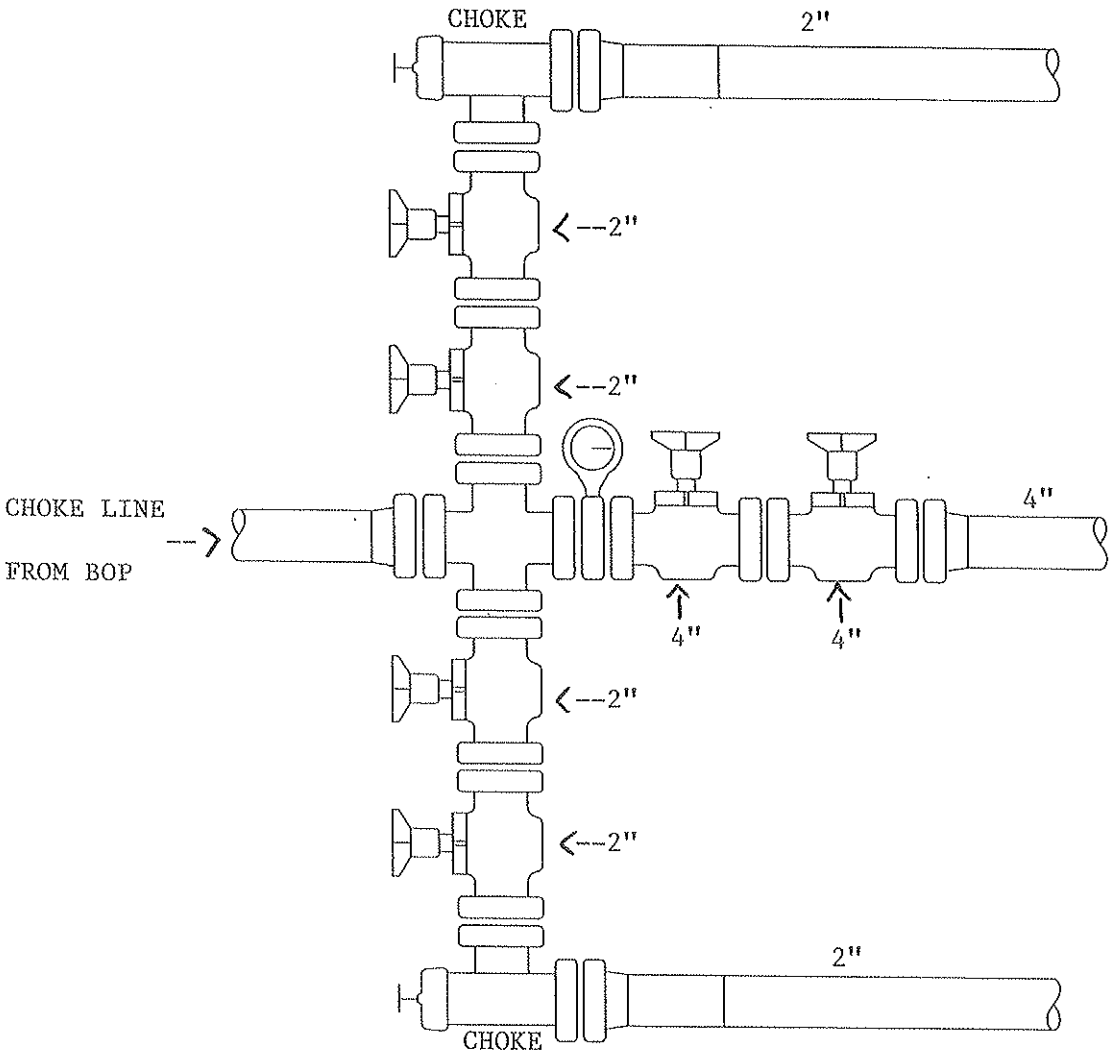

BOP STACK
FILL LINE
FLOWLINE
HYDRIL
3000 PSI
PIPE RAMS 3000 PSI
BLIND RAMS 3000 PSI
KILL LINE
DRILLING
SPOOL
CHOKE MANIFOLD
3" MIN
9-5/8" 3000 psi WP Flang,
Slip-on Casing Head

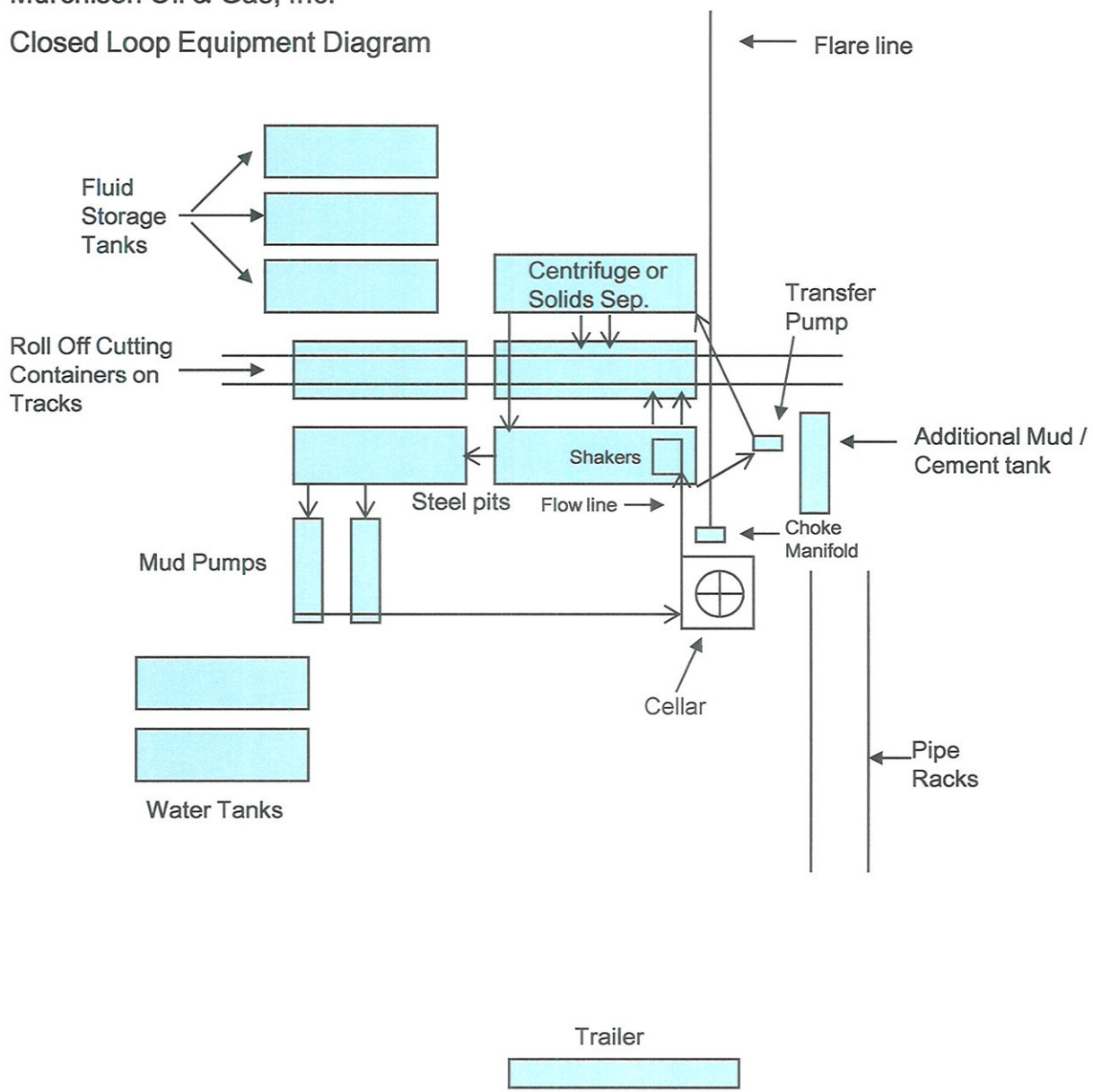
EXHIBIT H

CHOKE MANIFOLD



Murchison Oil & Gas, Inc.

Closed Loop Equipment Diagram



N

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems *that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure*, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: Murchison Oil & Gas, Inc. OGRID #: 015363

Address: 1100 Mira Vista Blvd., Plano, TX 75093-4698

Facility or well name: CARBON VALLEY 26 FED COM #1-H

API Number: 30-015- OCD Permit Number:

U/L or Qtr/Qtr I Section 26 Township 16S Range 27E County: Eddy

Center of Proposed Design: Latitude 32°89'12.64" Longitude 104°24'13.14" NAD: ☒1927 ☐ 1983

Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC

Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A

☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

4.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC

☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC

☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number:

☐ Previously Approved Operating and Maintenance Plan API Number:

5.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: CRI Disposal Facility Permit Number: R9166

Disposal Facility Name: GMI Disposal Facility Permit Number: 711-019-001

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): A. Arnold Nall Title: VP Operations

Signature: A Arnold Nall Date: 1/20/2010

e-mail address: arnall@jdmii.com Telephone: (972) 931-0700

7.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ **Approval Date:** _____

Title: _____ **OCD Permit Number:** _____

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

MURCHISON OIL & GAS, INC.

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN FOR DRILLING/COMPLETING/WORKOVER/FACILITY WITH THE EXCEPTION OF H2S IN EXCESS OF 100 PPM

MURCHISON OIL & GAS, INC.
NEW DRILL WELL
CARBON VALLEY 26 FED COM #1-H
SL: 1980' FSL & 250' FEL, UNIT I
BHL: 1980' FSL & 330' FWL, UNIT L
SEC 26, T16S, R27E
EDDY COUNTY, NEW MEXICO

This well/facility is not expected to have H2S, but the following is submitted as requested.

TABLE OF CONTENTS

GENERAL H2S EMERGENCY ACTIONS

In the event of any evidence of H2S emergency, the following plan will be initiated:

1. All personnel will immediately evacuate to an upwind and if possible uphill "safe area".
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (self-contained breathing apparatus).
3. Always use the "buddy system."
4. Isolate the well/problem if possible.
5. Account for all personnel.
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the company representative as soon as possible if not at the location (use the enclosed call list as instructed).

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of emergency response agencies and residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self-contained breathing apparatus.
2. Remove all personnel to the "safe area": (always use the "buddy system").
3. Contact company representative if not on location.
4. Set in motion the steps to protect and/or remove the general public to any upwind "safe area." Maintain strict security and safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies:
   City Police - City streets
   State Police - State Roads
   County Sheriff - County Roads
7. Call the NMOCD.

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harm's way, he will immediately notify public safety personnel.

EMERGENCY CALL LIST

	Office	Cell	Home
Arnold Nall	972-931-0700	214-415-3010	972-596-8504
Tommy Folsom	575-628-3932	575-706-0667	575-885-3474
Randy Ford	432-682-0440	432-599-2222	432-684-4334

EMERGENCY RESPONSE NUMBERS
Eddy County, New Mexico

State Police	888-442-6677
Eddy County Sheriff - Carlsbad	575-396-3611
Eddy County Emergency Management - Carlsbad	575-887-7551
State Emergency Response Center (SERC)	575-476-9620
Artesia Police / Fire / Ambulance Department	575-746-5000
New Mexico Oil Conservation Division - Artesia	575-748-1283
Callaway Safety Equipment, Inc.	575-392-2973

PROTECTION OF THE GENERAL (ROE) RADIUS OF EXPOSURE

In the event greater than 100 ppm H2S is present, the ROE calculations will be done to determine if the following conditions exist and whether the Plan must be activated:

* 100 ppm at any public area (any place not associated with this site)

* 500 ppm at any public road (any road which the general public may travel).

* 100 ppm radius of 3000' will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture.

Calculation for the 100 ppm ROE: (H2S concentrations in decimal form)

ROE = [(1.589)(H2S concentration)(Q)] (^0.6258) 10,000 ppm + = .01
1,000 ppm + = .001
Calculation for the 500 ppm ROE: 100 ppm + = .0001
10 ppm + = .00001

ROE = [(0.4546)(H2S concentration)(Q)] (^0.6258)

EXAMPLE: If a well/facility has been determined to have 650 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 200 MCFD then:

ROE for 100 ppm ROE=[(1.589)(.00065)(200,000)] ^0.6258
ROE=28.1'
ROE for 500 ppm ROE=[(.4546)(.00065)(200,000)] ^0.6258
ROE=12.8'

These calculations will be forwarded to the appropriate NMOCD district office when applicable.

PUBLIC EVACUATION PLAN

When the supervisor has determined that the general public will be involved, the following plan will be implemented.

1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
2. A trained person in H2S safety shall monitor with detection equipment the H2S concentration, wind and area of exposure. This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. All monitoring equipment shall be UL approved for use in Class I Groups A, B, C & D, Division I hazardous locations. All monitors will have a minimum capability of measuring H2S, oxygen, and flammable values.
3. Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
4. The company representative shall stay in communication with all agencies throughout the duration of the situation and inform such agencies when the situation has been contained and the affected area is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLLABLE CONDITION

The decision to ignite a well should be a last resort with one, if not both, of the following conditions:

1. Human life and/or property are endangered.
2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

Instructions for Igniting the Well:

1. Two people are required. They must be equipped with positive pressure, self-contained breathing apparatus and "D"-ring style, full body, OSHA approved safety harness. Non-flammable rope will be attached.
2. One of the people will be a qualified safety person who will test the atmosphere for H2S, oxygen and LFL. The other person will be the designated company representative.
3. Ignite upwind from a distance no closer than necessary. Make sure that the ignition site has the maximum escape avenue available. A 25mm flare gun with a range of approximately +/- 500 feet shall be used to ignite the gas.
4. Before igniting, check for the presence of combustible gases.
5. After igniting, continue emergency actions and procedures as before.

REQUIRED EMERGENCY EQUIPMENT

1. **Breathing Apparatus**
   - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
   - Work / Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
   - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. **Signage and Flagging**
   - One Color Code Condition Sign will be placed at the entrance to the site reflecting the possible conditions at the site.
   - A Colored Condition flag will be on display reflecting the condition at the site at that time.

3. **Briefing Area**
   - Two perpendicular areas will be designated by signs and readily accessible.

4. **Windsocks**
   - Two windsocks will be placed in strategic locations, visible from all angles.

5. **H2S Detectors and Alarms**
   - The stationary detector with three (3) sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible alarm @ 15 ppm. Calibrate a minimum of every 30 days or as needed. The three sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer):
     - Rig Floor
     - Bell Nipple
     - End of flow line or where well bore fluid is being discharged

6. **Auxiliary Rescue Equipment**
   - Stretcher
   - Two OSHA full body harnesses
   - 100' of 5/8" OSHA approved rope
   - One 20 lb. Class ABC fire extinguisher
   - Communication via cell phones on location and vehicles on location

USING SELF-CONTAINED BREATHING AIR EQUIPMENT (SCBA)

1. SCBA should be worn when any of the following are performed:
   - Working near the top or on top of a tank
   - Disconnecting any line where H2S can reasonably be expected.
   - Sampling air in the area to determine if toxic concentrations of H2S exist.
   - Working in areas where over 10 ppm of H2S has been detected.
   - At any time there is a doubt of the level of H2S in the area.
2. All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
3. Facial hair and standard eyeglasses are not allowed with SCBA.
4. Contact lenses are never allowed with SCBA.
5. When breaking out any line where H2S can reasonably be expected.
6. After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
7. All SCBA shall be inspected monthly.

RESCUE & FIRST AID FOR VICTIMS OF H2S POISONING

- Do not panic.
- Remain calm and think.
- Put on the breathing apparatus.
- Remove the victim to the safe breathing area as quickly as possible, upwind and uphill from source or crosswind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and/or CPR as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two (2) personnel on location shall be trained in CPR and First Aid.

TOXIC EFFECTS OF H2S POISONING

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 PPM, which is .001% by volume. Hydrogen Sulfide is heavier than air (specific gravity-1.192) and is colorless and transparent. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is 5-6 times more toxic that Carbon Monoxide. Occupational exposure limits for Hydrogen sulfide and other gasses are compared below in Table 1. Toxicity table for H2S and physical effects are shown in Table II.

Table 1

Permissible Exposure Limits of Various Gasses

Common Name	Symbol	Sp. Gravity	TLV	STEL	IDLH
Hydrogen Cyanide	HCN	.94	4.7 ppm	C	
Hydrogen Sulfide	H2S	1.192	10 ppm	15 ppm	100 ppm
Sulfide Dioxide	SO2	2.21	2 ppm	5 ppm	
Chlorine	CL	2.45	.5 ppm	1 ppm	
Carbon Monoxide	CO	.97	25 ppm	200 ppm	
Carbon Dioxide	CO2	1.52	5000 ppm	30,000 ppm	
Methane	CH4	.55	4.7% LEL	14% UEL	

Definitions

A. TLV – Threshold Limit Value is the concentration employees may be exposed to based on a TWA (time weighted average) for eight (8) hours in one day for 40 hours in one (1) week. This is set by ACGIH (American Conference of Governmental Hygienists and regulated by OSHA.

B. STEL – Short Term Exposure Limit is the 15 minute average concentration an employee may be exposed to providing that the highest exposure never exceeds the OEL (Occupational Exposure Limit). The OEL for H2S is 19 PPM.

C. IDLH – Immediately Dangerous to Life and Health is the concentration that has been determined by the ACGIH to cause serious health problems or death if exposed to this level. The IDLH for H2S is 100 PPM.

D. TWA – Time Weighted Average is the average concentration of any chemical or gas for an eight (8) hour period. This is the concentration that any employee may be exposed to based on an TWA.

TABLE II

Toxicity Table of H2S

Percent %	PPM	Physical Effects
.0001	1	Can smell less than 1 ppm.
.001	10	TLV for 8 hours of exposure
.0015	15	STEL for 15 minutes of exposure
.01	100	Immediately Dangerous to Life & Health. Kills sense of smell in 3 to 5 minutes.
.02	200	Kills sense of smell quickly, may burn eyes and throat.
.05	500	Dizziness, cessation of breathing begins in a few minutes.
.07	700	Unconscious quickly, death will result if not rescued promptly.
.10	1000	Death will result unless rescued promptly. Artificial resuscitation may be necessary.

PHYSICAL PROPERTIES OF H2S

The properties of all gases are usually described in the context of seven major categories:

COLOR
ODOR
VAPOR DENSITY
EXPLOSIVE LIMITS
FLAMMABILITY
SOLUBILITY (IN WATER)
BOILING POINT

Hydrogen Sulfide is no exception. Information from these categories should be considered in order to provide a fairly complete picture of the properties of the gas.

COLOR – TRANSPARENT
Hydrogen Sulfide is colorless so it is invisible. This fact simply means that you can't rely on your eyes to detect its presence, a fact that makes the gas extremely dangerous to be around.

ODOR – ROTTEN EGGS
Hydrogen Sulfide has a distinctive offensive smell, similar to "rotten eggs." For this reason it earned its common name "sour gas." However, H2S, even in low concentrations, is so toxic that it attacks and quickly impairs a victim's sense of smell, so it could be fatal to rely on your nose as a detection device.

VAPOR DENSITY – SPECIFIC GRAVITY OF 1.192
Hydrogen Sulfide is heavier than air so it tends to settle in low-lying areas like pits, cellars or tanks. If you find yourself in a location where H2S is known to exist, protect yourself. Whenever possible, work in an area upwind and keep to higher ground.

EXPLOSIVE LIMITS – 4.3% TO 46%
Mixed with the right proportion of air or oxygen, H2S will ignite and burn or explode, producing another alarming element of danger besides poisoning.

FLAMMABILITY
Hydrogen Sulfide will burn readily with a distinctive clear blue flame, producing Sulfur Dioxide (SO2), another hazardous gas that irritates the eyes and lungs.

SOLUBILITY – 4 TO 1 RATIO WITH WATER
Hydrogen Sulfide can be dissolved in liquids, which means that it can be present in any container or vessel used to carry or hold well fluids including oil, water, emulsion and sludge. The solubility of H2S is dependent on temperature and pressure, but if conditions are right, simply agitating a fluid containing H2S may release the gas into the air.

BOILING POINT – (-76 degrees Fahrenheit)
Liquefied Hydrogen Sulfide boils at a very low temperature, so it is usually found as a gas.

SURFACE USE AND OPERATIONS PLAN FOR DRILLING, COMPLETION, AND PRODUCING

Murchison Oil & Gas, Inc.
Carbon Valley 26 Fed Com #1-H
SL: 1980' FSL & 250' FEL, UNIT I
BHL: 1980' FSL & 330' FWL, UNIT L
Sec 26, T16S, R27E
Eddy County, New Mexico

LOCATED

Approximately 11 miles NE of Artesia, New Mexico.

OIL & GAS LEASE

SHL: LS# NM NM 114347
BHL: LS# NM NM 120349

BOND COVERAGE

NM 2163

POOL

Dog Canyon; Wolfcamp

OIL & GAS RECORD LESSEE

Lessee: Murchison Oil & Gas, Inc., 1100 Mira Vista Blvd., Plano, TX 75093
Operating Rights: Murchison Oil & Gas, Inc., 1100 Mira Vista Blvd., Plano, TX 75093

SURFACE OWNER

Bureau of Land Management

MINERAL OWNER

Bureau of Land Management

GRAZING TENANT

Bogle Ltd Co. LLC, P.O. Box 460, Dexter, NM 88230 (575) 433-3500

EXHIBITS

A.	Well Location & Acreage Dedication Map
B.	Area Road Map
C-1 & C-2	Vicinity Oil & Gas Map
D.	Topographic & Location Verification Map
E-1---E-2	Proposed Lease Road and Pad Layout Map
F.	Drilling Rig Layout
G.	BOPE Schematic
H.	Choke Manifold Schematic

This well will be drilled to a BHL of approximately 6235' TVD, and approximately 10705' MD.

EXISTING ROADS

Exhibit A is a portion of a section map showing the location of the proposed well as staked.

Exhibit B is a map showing existing roads in the vicinity of the proposed well site.

Directions to well location: From the junction of Hwy. 82 and Southern Union (CR 202), go North on CR202 approx. 3.0 miles; veer Northeast and go approx. 1.2 miles; veer Northwest and go approx. 2.2 miles. Turn right and go Northeast approx. 800 feet. Turn North and go approx. 1900' feet. Location is approx. 200 feet West.

ACCESS ROADS

Length and Width

Proposed access road is approximately 14714.8' of existing road and 34' of new road (approx. 2.787 miles) long and 50' wide (Exhibit E-1 thru E-7). Murchison Oil & Gas, Inc. has agreements with the surface owners for right-of-way up to proposed lease road and for the additional lease road to proposed well.

Surface Material

Six inches of caliche and water, compacted and graded.

Maximum Grade

Less than three percent

Turnouts

None needed

Drainage Design

N/A

Culverts

None needed

Gates and Cattle Guards

None required

LOCATION OF EXISTING WELLS

The locations of existing wells in Section 26 are shown on Exhibit C-1 and C-2.

LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Necessary production facilities for this well will be located on the well pad.

LOCATION AND TYPE OF WATER SUPPLY

It is planned to drill the proposed well with a cut-brine water system or with produced water. The water will be obtained from either a private water well owner or a commercial source and will either be piped to location from a nearby water well or will be hauled to location by truck over existing and proposed lease roads as shown on Exhibit E.

SOURCE OF CONSTRUCTION MATERIALS

Caliche required for the construction of the location pad and access road will be obtained from caliche on the location or from the nearest BLM-approved pit.

METHODS OF HANDLING WASTE DISPOSAL

All drilling fluid will be circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) will be circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid will be continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll-off containers will be lined and de-watered with fluids re-circulated into system.

Additional tank will be used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained by solids control personnel and/or rig crews on location.

Cuttings will be hauled to one of the following, depending on which rig is available to drill well:

CRI (permit number R9166)
or
GMI (permit number 711-019-001)

ANCILLARY FACILITIES

None required.

WELL SITE LAYOUT

Exhibit F shows the relative location and dimensions of the well pad, mud pits, cuttings containers and trash pit, and the location of major rig components. Operator requests V-door be positioned to the East, and the steel pits located to the North.

The ground surface at the drilling location is essentially flat.

A Closed-Loop System will be used.

The pad area has been staked and flagged.

PLANS FOR RESTORATION OF THE SURFACE

After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk to leave the site in an as aesthetically pleasing condition as possible.

Any unguarded pits containing fluids will be fenced until they are filled.

If the proposed well is non productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible.

OTHER INFORMATION

Topography

The land surface at the well site is small, rolling hills.

Soil

Loamy soil shallow to caliche and raw Gypsum.

Flora and Fauna

The vegetation consists of creosote, mesquite, yucca, prickly pear, Mormon tea, cane cholla, pencil cholla, horse crippler and various grasses. Faunal species include pronghorn antelope, mule deer, coyote, badger, rabbits, and various snakes, small mammals, birds and reptiles.

Ponds and Streams

There are no rivers, lakes, ponds, or streams in the area.

Residences and Other Structures

There are no residences within one mile of the proposed well site.

Archaeological, Historical, and Cultural sites

An Archaeological Survey has been sent to the BLM Office.

Land Use

Grazing

OPERATOR'S REPRESENTATIVES

Arnold Nall
1100 Mira Vista Blvd.
Plano, TX 75093-4698
Office Phone: (972) 931-0700
Cell Phone: (214) 415-3010

Randy Ford
415 W. Wall Street, Suite 1700
Midland, TX 79701
Office Phone: (432) 682-0440
Cell Phone: (432) 559-2222

Murchison Oil & Gas, Inc.
Carbon Valley 26 Fed Com #1-H
SL: 1980' FSL & 250' FEL, UNIT I
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Sec 26, T16S, R27E
Eddy County, New Mexico

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Murchison Oil & Gas, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

1/22/10
Date

Arnold Nall
VP, Operations
Murchison Oil & Gas, Inc.

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.:	2a. Lead (Sponsoring) Agency:	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
116,176	BLM-CFO	State of New Mexico	

4. Title of Report: A Cultural Resource Survey for the Carbon Valley "26" Federal Com No. 1H Well Pad and Access Road

Author(s) Justin Rein

5. Type of Report
☒ Negative ☐ Positive

6. Investigation Type
☐ Research Design ☒ Survey/Inventory ☐ Test Excavation ☐ Excavation ☐ Collections/Non-Field Study
☐ Overview/Lit Review ☐ Monitoring ☐ Ethnographic study ☐ Site specific visit ☐ Other

7. Description of Undertaking (what does the project entail?): The proposed undertaking involves a pedestrian cultural resource survey for the proposed Murchison Oil and Gas, Inc. Carbon Valley "26" Federal Com No. 1H well location and associated access road. The proposed well will impact an area no greater than 400 ft by 400 ft yet a 600 ft by 600 ft block of land was surveyed. Likewise, the proposed access road will impact a strip of land no greater than 50 ft wide, yet a 100 ft wide corridor was surveyed to ensure the protection of any cultural resources.

8. Dates of Investigation: January 5, 2010

9. Report Date: January 8, 2010

10. Performing Agency/Consultant:
Boone Archaeological Services, LLC
2030 North Canal
Carlsbad, NM 88220
575-885-1352
Principal Investigator: Danny Boone
Field Supervisor: Justin Rein
Field Personnel Names: Justin Rein

11. Performing Agency/Consultant Report No.:
BAS-12-09-38

12. Applicable Cultural Resource Permit No(s):
BLM Permit No.: 190-2920-08-K
NM State Permit No.: NM-10-157-M

13. Client/Customer (project proponent):
Murchison Oil & Gas, Inc.
Contact: Vicki Johnston
Address: 1100 Mira Vista Blvd.
Plano, Texas 75093-4698
Phone: (281) 468-2448

14. Client/Customer Project No.: N/A

15. Land Ownership Status ***(Must be indicated on project map):***

Land Owner	Acres Surveyed	Acres in APE
Bureau of Land Management – Carlsbad Field Office (BLM-CFO)	8.15	4.17
State of New Mexico	3.67	1.49
TOTALS	11.82	5.66

16. Records Search(es):

Date(s) of ARMS File Review: January 4, 2009	**Name of Reviewer(s):** Justin Rein	
Date(s) of NR/SR File Review: January 4, 2009	**Name of Reviewer(s):** Justin Rein	
Date(s) of Other Agency File Review: January 5, 2009	**Name of Reviewer(s):** Justin Rein	**Agency** BLM-CFO

Three previously recorded sites (LA 142360, LA 142599, and LA 160055) were found within 0.25 miles of the project area. One of these sites, LA 142360, is within 500 ft. None of these sites will be affected by the current undertaking.

17. Survey Data:

a. Source Graphics ☒ NAD 27 ☐ NAD 83

☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:

☒ GPS Unit Accuracy ☐<1.0m ☒ 1-10m ☐ 10-100m ☐>100m

b. USGS 7.5' Topographic Map Name | USGS Quad Code

Diamond Mound, New Mexico 1951	32104-H2

c. County(ies): Eddy County

17. Survey Data (continued):

d. Nearest City or Town: Artesia, New Mexico

e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼	¼	¼
16 South	27 East	25	E½	NE¼	SE¼
		25	E½	SE¼	SW¼
16 South	27 East	26	W½	NW¼	SW¼

Projected legal description? Yes [ ], No [ ] Unplatted [ ]

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.): The proposed Carbon Valley "26" Federal Com No. 1H well location is centered 1,980 feet from the south line and 250 feet from the east line of Section 26, Township 16 South, Range 27 East. The proposed access road begins at the northern margin of an existing caliche-capped lease road along the base of Dog Canyon Draw and travels approximately 1,700 ft north thence 35 ft west where it terminates at the southeastern margin of the proposed well location. Section 25 is an irregular section, the template was anchored in the northeast and northwest corners of the section for the above legal description.

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverage

Configuration: ☒ block survey units: 600 ft by 600 ft ☒ linear survey units (l x w): 1,550 ft long by 100 ft wide

☐ other survey units (specify):

Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)

Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15m (50 ft) Crew Size: 1 Fieldwork Dates: January 5, 2010

Survey Person Hours: 4.0 Recording Person Hours: 0 Total Hours: 4.0

Additional Narrative: In order to protect any cultural resources, a 600 ft by 600 ft was surveyed around the staked well center utilizing linear transect intervals spaced no more than 15 m (50 ft) apart. Approximately 185 ft of the proposed access road lies within the block survey. A 100 ft wide corridor was surveyed along the remainder of the staked access road centerline utilizing the same 50 ft wide linear transect. The survey encompassed a total of 11.82 acres on both State of New Mexico property (3.67 acres) and Federal property (8.15 acres) with the BLM-CFO acting as lead agency.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The project area is located along the northern flank of Dog Canyon Draw, roughly10 miles east-northeast of Artesia, New Mexico. Elevation ranges from 3,430 ft to 3,490 above mean sea level. Overall, the terrain slopes gradually downhill to the south, towards Dog Canyon Draw, at a grade of roughly two percent. Local soils are of the Reeves-Gypsum land-Cottonwood association as defined by the Soil Conservation Service of the U.S. Department of Agriculture. Local vegetation is typical of Chihuahuan Desert scrub and includes various grasses, mesquite, acacia, creosote, prickly pear, horse crippler, and barrel cacti, yucca, Mormon tea, and various low forbs.

Meteorological data was obtained for the nearby City of Artesia, New Mexico from the Western Regional Climate Center (WRCC) online database. From 1914 to 2004, Artesia received an average annual precipitation of 11.87 inches. During the same time, Artesia had an average high temperature of 76.9 degrees Fahrenheit and an average low temperature of 43.8 degrees Fahrenheit. January was the coldest month averaging 56.8 degrees Fahrenheit, while July was the warmest on average at 94.8 degrees Fahrenheit.

20.a. **Percent Ground Visibility:** 80%

b. **Condition of Survey Area (grazed, bladed, undisturbed, etc.):** Due to the vegetative ground cover, surface visibility averaged 80 percent at the time of survey. The proposed well location is located west of two large north – south trending overhead transmission lines. Access will be afforded the well via a two-track road along the western of the two transmission lines which will necessitate upgrading. A caliche lease road is located at the southern terminus of the lease road upgrade, traveling from southwest to northeast along the base of Dog Canyon Draw. Additional oil and gas exploration is visible in the surrounding area while the remainder of the project area remains otherwise undeveloped and susceptible to natural aeolean and alluvial activities and openly grazing cattle.

21. **CULTURAL RESOURCE FINDINGS** ☐ **Yes, See Page 3** ☒ **No, Discuss Why:** The project area is situated across a gradually sloping yet overall flat, exposed plain which may have been less desirable for long term occupation.

22. **Required Attachments (check all appropriate boxes):**
- ☒ **USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn**
- ☒ **Copy of NMCRIS Mapserver Map Check**
- ☐ **LA Site Forms - new sites** (*with sketch map & topographic map*)
- ☐ **LA Site Forms (update) - previously recorded & un-relocated sites** (*first 2 pages minimum*)
- ☐ **Historic Cultural Property Inventory Forms**
- ☒ **List and Description of isolates, if applicable**
- ☐ **List and Description of Collections, if applicable**

23. **Other Attachments:**
- ☐ **Photographs and Log**
- ☒ **Other Attachments**

(Describe): Survey plats provided by Murchison Oil & Gas, Inc.

24. **I certify the information provided above is correct and accurate and meets all applicable agency standards.**

Principal Investigator/Responsible Archaeologist: Justin Rein

Signature _____ **Date** 1-8-10 **Title (if not PI):** Crew Chief

25. **Reviewing Agency:**
Reviewer's Name/Date

Accepted ( ) Rejected ( )

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. **SHPO**
Reviewer's Name/Date:

HPD Log #:
SHPO File Location:
Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.:	2. Lead (Sponsoring) Agency:	3. Lead Agency Report No.:
116,176	BLM - CFO	

SURVEY RESULTS:
Sites discovered and registered: 0
Sites discovered and NOT registered: 0
Previously recorded sites revisited *(site update form required)*: 0
Previously recorded sites not relocated ***(site update form required):*** 0
TOTAL SITES VISITED: 0
Total isolates recorded: 3 **Non-selective isolate recording?** ☒
Total structures recorded *(new and previously recorded, including acequias)*: 0

MANAGEMENT SUMMARY: No significant cultural materials were encountered during the survey. As such, archaeological clearance is recommended for the proposed Carbon Valley "26" Federal Com No. 1H well location and associated access road. If any additional cultural materials are encountered during any phase of construction, work at that location should cease and archaeologists with the BLM-CFO should be notified immediately.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG *(site form required)*

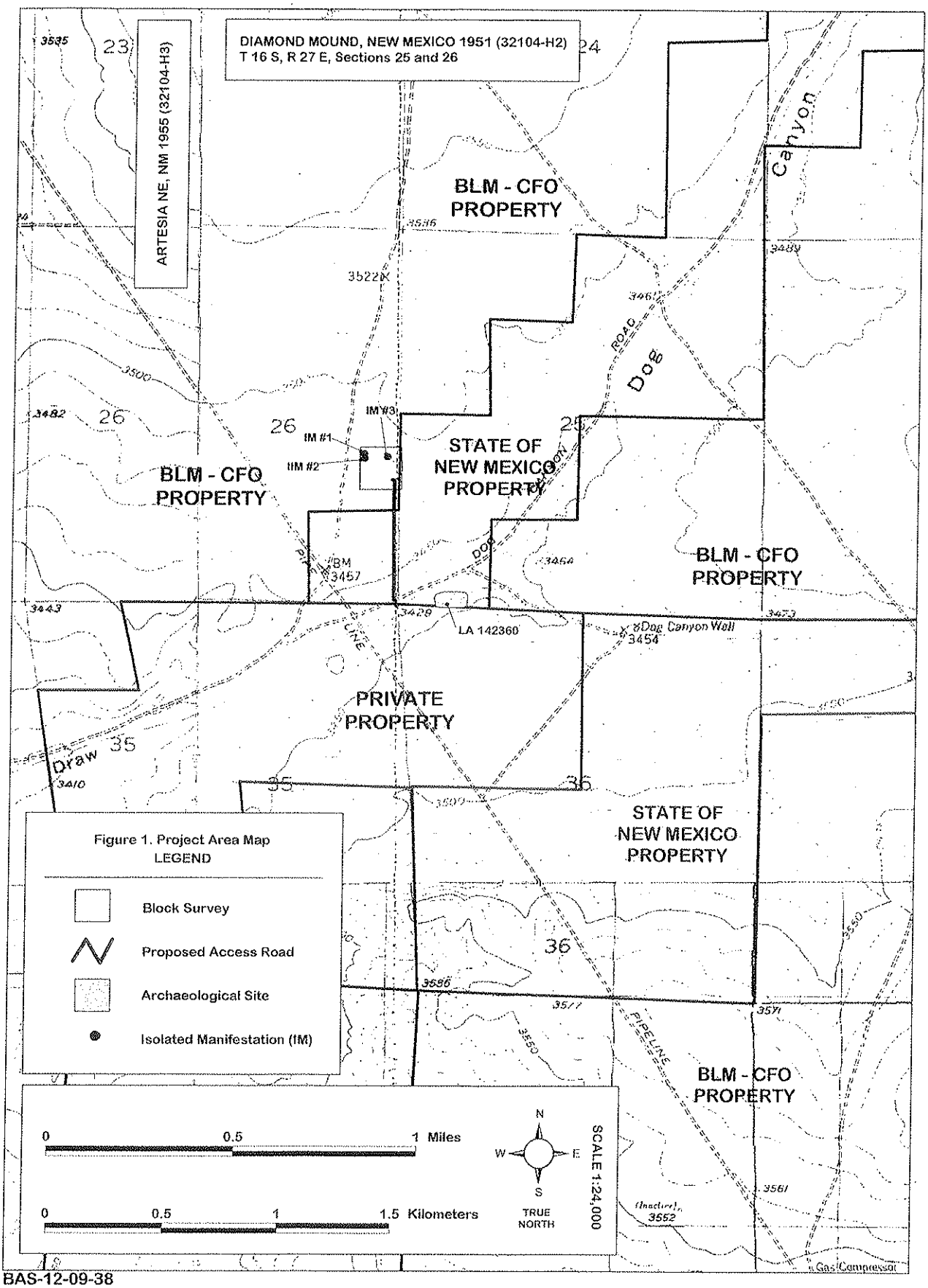
Sites Discovered *(site form required)* : Previously recorded sites *(Site update form required):*

LA No.	Field/Agency No.	LA No.	Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG *(site form required)*

Tested LA number(s)	Excavated LA number(s)


DIAMOND MOUND, NEW MEXICO 1951 (32104-H2)
T 16 S, R 27 E, Sections 25 and 26
ARTESIA NE, NM 1955 (32104-H3)
BLM - CFO PROPERTY
STATE OF NEW MEXICO PROPERTY
BLM - CFO PROPERTY
BLM - CFO PROPERTY
PRIVATE PROPERTY
STATE OF NEW MEXICO PROPERTY
BLM - CFO PROPERTY
IM #1
IM #2
IM #3
LA 142360
Dog Canyon
Draw
PIPELINE
ROAD
Figure 1. Project Area Map
LEGEND
Block Survey
Proposed Access Road
Archaeological Site
Isolated Manifestation (IM)
0 0.5 1 Miles
0 0.5 1 1.5 Kilometers
N
W
E
S
TRUE NORTH
SCALE 1:24,000

BAS-12-09-38

BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(LIVE) SERIAL REGISTER PAGE

BHL

01 12-22-1987;101STAT1330;30USC181 ET SEQ
Case Type 312021: O&G LSE COMP PD -1987
Commodity 459: OIL & GAS L
Case Disposition: AUTHORIZED Case File Juris:

Total Acres 800.000

Serial Number NMNM-- - 120349

Serial Number: NMNM-- - 120349

Name & Address			Int Rel	%Interest
CHASE OIL CORP	PO BOX 1767	ARTESIA NM 88211	LESSEE	100.000000000

Serial Number: NMNM-- - 120349

Mer Twp Rng	Sec	SType	Nr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
23 0160S 0270E	024	ALIQ		N2,SW;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT
23 0160S 0270E	026	ALIQ		NE,SW;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT

Serial Number: NMNM-- - 120349

Act Date	Code	Action	Action Remarks	Pending Office
02/28/2008	387	CASE ESTABLISHED	200804008;	
04/01/2008	299	PROTEST FILED	/1/W ENVR LAW CTR	
04/01/2008	299	PROTEST FILED	/2/WILDEARTH GUARDIAN	
04/16/2008	143	BONUS BID PAYMENT RECD	$1600.00;	
04/16/2008	191	SALE HELD		
04/16/2008	267	BID RECEIVED	$1360000.00;	
04/23/2008	143	BONUS BID PAYMENT RECD	$1358400.00;	
07/11/2008	298	PROTEST DISMISSED	/1/	
07/11/2008	298	PROTEST DISMISSED	/2/	
07/18/2008	237	LEASE ISSUED		
07/18/2008	974	AUTOMATED RECORD VERIF	BCO	
08/01/2008	496	FUND CODE	05;145003	
08/01/2008	530	RLTY RATE - 12 1/2%		
08/01/2008	868	EFFECTIVE DATE		
07/31/2018	763	EXPIRES		

Serial Number: NMNM-- - 120349

Line Nr	Remarks
0002	STIPULATIONS ATTACHED TO LEASE:
0003	NM-11-LN SPECIAL CULTURAL RESOURCE
0004	SENM-LN-1 CAVE - KARST OCCURRENCE AREA
0005	SENM-S-17 SLOPES OR FRAGILE SOILS
0006	SENM-S-21 CAVES AND KARST

BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(LIVE) SERIAL REGISTER PAGE

SHL

Run Date/Time: 02/02/10 07:04 AM

01 12-22-1987;101STAT1330;30USC181 ET SEQ
Case Type 312021: O&G LSE COMP PD -1987
Commodity 459: OIL & GAS L
Case Disposition: AUTHORIZED Case File Juris:

Total Acres 280.000

Serial Number NMNM-- - 114347

Serial Number: NMNM-- - 114347

Name & Address			Int Rel	%Interest
THE BLANCO CO	PO BOX 25968	ALBUQUERQUE NM 87125	LESSEE	100.000000000

Serial Number: NMNM-- - 114347

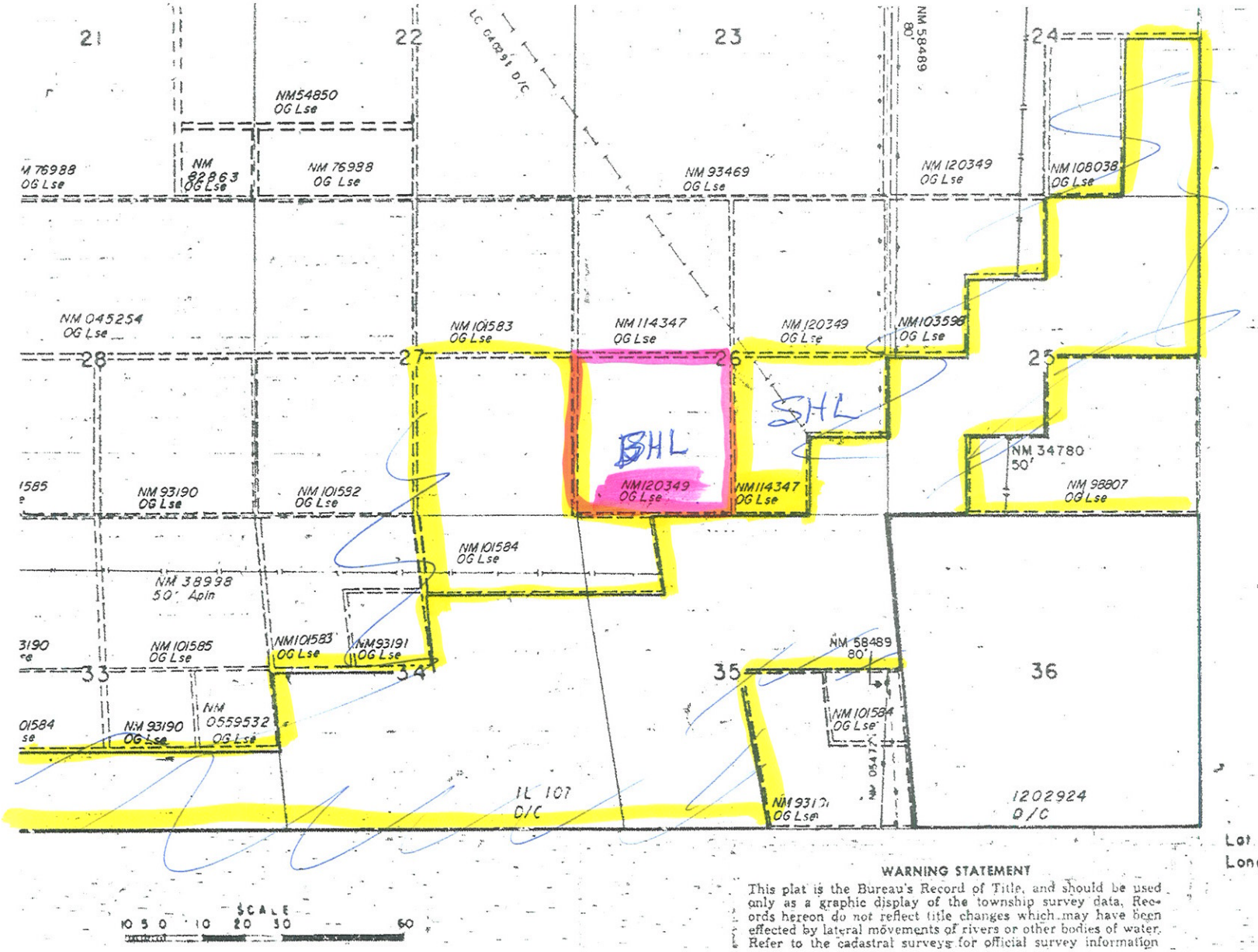
Mer Twp Rng	Sec	SType	Nr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
23 0160S 0270E	026	ALIQ		NW,N2SE,SWSE;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT

Serial Number: NMNM-- - 114347

Act Date	Code	Action	Action Remarks	Pending Office
07/19/2005	387	CASE ESTABLISHED	200507026;	
07/20/2005	191	SALE HELD		
07/20/2005	267	BID RECEIVED	$154000.00;	
08/11/2005	237	LEASE ISSUED		
08/11/2005	974	AUTOMATED RECORD VERIF	LR	
09/01/2005	496	FUND CODE	05;145003	
09/01/2005	530	RLTY RATE - 12 1/2%		
09/01/2005	868	EFFECTIVE DATE		
01/03/2006	963	CASE MICROFILMED		
12/22/2009	140	ASGN FILED	BLANCO/MURCHISON OI;1	FLUIDS TEAM
08/31/2015	763	EXPIRES		

Serial Number: NMNM-- - 114347

Line Nr	Remarks
02	STIPULATIONS ATTACHED TO LEASE:
03	NM-11-LN SPECIAL CULTURAL RESOURCE LEASE
04	NOTICE
05	SENM-LN-1 CAVE - KARST OCCURRENCE AREA
06	SENM-S-17 SLOPES OR FRAGILE SOILS
07	GYPSUM SOILS
08	SENM-S-21 CAVES AND KARST



Communitization Agreement
Com. Agr. No. SRM-1208
Sec. 2: Lots 1, 2, 7, 8, 9, 10,
Com. Agr. No. SRM-1271
Sec. 2: Lots 1, 2, 7, 8, 9, 10,
Com. Agr. No. 1280
Sec. 12: N2
Com. Agr. No. SCR-217
Sec 33: E2
Com Agr. No. NM 88500
Sec 21: S2
Com. Agr. No. SCR-14
Sec. 10: E2
Com. Agr. No. SCR-199
Sec. 12: S2
Com. Agr. No. NM 90991
Sec. 21: N2
Com Agr No. NM 91036
Sec 21: N2
Agr No NM 104030
Sec 33: SE
Agr No NM 104041
Sec 28: S2
Agr No NM 105319
Sec 25: E2

CURRENT TO
5/15/82

Lat. 32° 52' 13" N
Long. 104° 13' 25" W

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information

FEDERAL EXPRESS

January 29, 2010

United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM. 88220-6292

RE: CARBON VALLEY 26 FED COM #1-H
SEC. 26, T16S, R27E
EDDY CO., NM.

To Whom It May Concern:

Please find enclosed the following:

1) Form 3160-3 - Application for Permit to Drill, Form C-102, plus attachments – (6 sets = 1 original + 5 copies)
2) Check #0052753 - $6,500.00 - APD processing fee
3) Archaeological Report (6 copies)
4) Form C-144 CLEZ (6 copies)

Very truly yours,

MURCHISON OIL & GAS, INC.

Carla Tracy

Carla Tracy
Regulatory Coordinator

ct/CarbonValley26FedCom#1-H-BLMLtr-Fm3160-3-APD

Encl.

Murchison Oil & Gas, Inc. 52753

BUREAU OF LAND MANAGEMENT	VENDOR 2048		CHECK DATE 01/29/10	
INVOICE NUMBER	INVOICE DATE		DISCOUNT TAKEN	AMOUNT PAID
12910CV261-H	01/29/10	1532010 APD FEE-CARBON VLY 26 FED #1H	0.00	6,500.00
		Total:	0.00	6,500.00

BUREAU OF LAND MGMT
CARLSBAD FIELD OFFICE
FEB -1 PM 12:29
RECEIVED

Posted
2-1-10
cc
A. Amos

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

Murchison Oil & Gas, Inc.
1100 Mira Vista Blvd.
Plano, Texas 75093-4698
972-931-0700

Bank of America
Dallas Texas

CHECK NO. 0052753

DATE 01/29/10

AMOUNT ********6,500.00

**********6,500 Dollars and 00 Cents

COPY

PAY TO THE ORDER OF
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE ST
CARLSBAD NM 88220

Sandra J. Dunn

THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK—HOLD AT AN ANGLE TO VIEW

⑈0052753⑈ ⑆111000025⑆ ⑈004810915857⑈

UNITED STATES DEPT OF INTERIOR

BUREAU OF LAND MANAGEMENT

BOND ABSTRACT

BLM BOND NO: NM2163
DOCUMENT ID: US TREASURY NOTE
CASE TYPE: 310434 O&G BOND ALL LANDS

DISPOSITION: ACCEPTED

NAME AND ADDRESS OF BOND PARTIES

B89000284 BONDED PRINCIPAL
MURCHISON OIL & GAS INC
1445 ROSS AVE NO 5300
DALLAS TX 752022733

NAME AND ADDRESS OF SURETY PARTIES

SERIAL NUMBER(s):

BOND AREA: STATEWIDE
TYPE OF LAND: FEDERAL-ALL RIGHTS
BOND TYPE: TREASURY SECURITY

STATES COVERED: NM
BOND AMOUNT:$25,000

BONDED ACTIVITY/PURPOSE

GENERAL LSE/DRILLING

COMMODITY(IES)

OIL & GAS L

ACTION CODE	ACTION DATE	ACTION TAKEN	ACTION REMARKS	PENDING
468	03/22/1993	BOND FILED		NM94364
469	04/29/1993	BOND ACCEPTED	EFF 03/22/1993	
974	04/29/1993	AUTOMATED RECORD VERIF	ST/JLV	
478	04/20/1998	RIDER FILED		NM92100
247	05/01/1998	FUTURE ACTION SUSPENSE	NOTE DUE 01/31/03;	
479	05/01/1998	RIDER ACCEPTED	EFF 04/20/98;	
113	01/01/2003	ADDTL INFO RECD	REPLACEMENT T-NOTE	
247	01/01/2003	FUTURE ACTION SUSPENSE	MATURES 11/15/07	
974	01/01/2003	AUTOMATED RECORD VERIF	TF/TF	

GENERAL REMARKS

LINE #	REMARK
000	04/29/1993 REPLACEMENT BOND FOR BLM BOND NO. NM1732
001	05/01/1998 - Rider changes US Treasury note security
002	01/01/2003 - T-NOTE MATURES 11/15/07 - SECURITY CONTINUES AFTER MATURITY
003	DATE BUT INTEREST TO MURCHISON STOPS UNLESS COMPANY REPLACES
004	WITH NEW T-NOTE